SSUE OF DECEMBER, 1948

AMERICAN GAS ASSOCIATION MONTHLY

good cheer

They all add up to

good will

good food

Merry Christmas

The third of these, good food, will be prepared, this holiday season, with GAS ranges in 24 million American homes, in 93 out of every 100 city and suburban homes of California!

The experience and preference of these millions of homemakers confirm *your* judgment in choosing a new, modern...

AUTOMATIC GAS RANGE
Built to "CP" Standards

Most dealers can assure pre-Christmas delivery if you order promptly. See the beautiful new models shown by your dealer or gas company.

9 POINTS OF SUPERIORITY

Exclusively Yours with Modern Automatic GAS Cooking:

1. Best automatic features
2. More modern conveniences
3. Easy to keep clean
4. Easiest to cook with
5. Cooks foods better
6. Cooks much faster
7. Cool in operation
8. Costs less to run
9. Costs less to buy new

The West Prefers GAS

Better • Quicker • Cheaper

For Certified Performance, select a gas range bearing the "CP" Seal—such as the *"Ultra-matic" Caloric,* illustrated—one of many makes in numerous models built to "CP" standards.

THE PACIFIC COAST GAS ASSOCIATION

Advertisement from the 1948 series sponsored by the Pacific Coast Gas Association appears in Sunset Magazine, Fortnight Magazine and California Parent-Teacher

As the new year approaches rapidly there is evidence on every hand that the momentum gained in the last eventful year will carry the industry to even greater heights than it now occupies. . . . Not the least of this evidence is the pungent and impressive annual report of the precedent-breaking PAR program which is briefed in this issue. No one can read this record of tangible and broad-gauged results in research and promotion without a feeling of confidence in the industry's future. . . . The PAR slug which spots activities sponsored under this program, has appeared with increasing frequency throughout the MONTHLY and this issue is no exception. A special feature which it is hoped to continue is that which throws the spotlight on the Gas Production Research Committee at work. Other PAR results are described in the Modulated Heating article, and the account of gas displays at national expositions involving some of the industry's most vital industrial and commercial markets. . . . Aside from PAR, there is much fruitful cooperative activity on other fronts. The accountants and technical men announce ambitious programs which auger well for a highly successful year. The start of a nationwide refrigeration sales campaign, the first since 1941, heralds the end of the sellers' market in this field. . . . Hang on to your hats folks, it's going to be a year of great activity and accomplishment. . . . Merry Christmas!

JAMES M. BEALL
EDITOR

JAC A. CUSHMAN
MANAGING EDITOR

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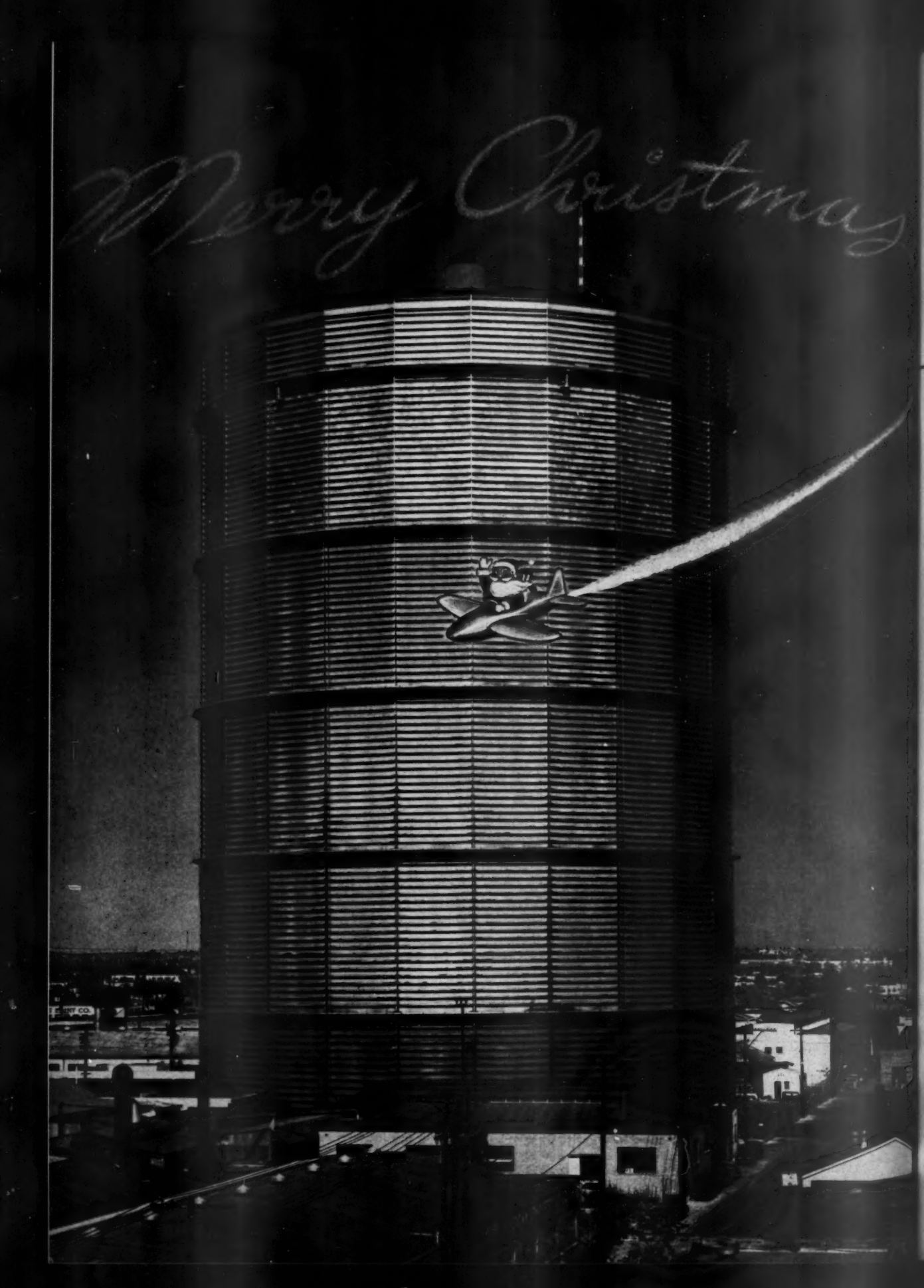

Merry Christmas

PAR program brings results

● During the past four years cooperation and coordination have grown among all elements of the gas industry to make the Promotion, Advertising and Research Program of the American Gas Association the envy of businesses large and small. A fifth year under PAR is now beginning.

Chairman Robert A. Hornby and his aides have initiated a concerted fund-raising drive to back up the gas industry's next 12-month effort. This year's great PAR offensive is expected to at least equal the record of last year when a budget of $1,600,000 produced amazingly effective results per dollar spent—THE EDITOR.

■

DURING THE PAST YEAR gas company subscriptions to the national advertising program were increased to $800,000 annually and the PAR Committee undertook the raising of total funds needed for national advertising.

The new General Research Planning Committee was given the responsibility of planning all association research activities and of generally supervising the conduct of all research projects authorized by the PAR Committee.

The new General Promotional Planning Committee was delegated the final responsibility for planning all Association promotional and advertising activities whether underwritten from the PAR fund or the Association's general fund. This committee also received the responsibility for conducting all promotional activities underwritten by the PAR fund.

The general Promotional Planning Committee and the Promotional Bureau of the Association were delegated the enlarged responsibility for planning and integration of all promotional activities of the Association with each other and with those of gas companies and manufacturers.

Results of the past year have shown the wisdom of these actions.

The past year's promotional activities and those planned for the future fall into four categories:

First—Presenting the gas service story nationally. Under this heading come industry participation in national trade shows, relations with the motion picture industry, work with national publications, and the nation-wide educational program. All of these are essential to the better acceptance of gas by molders of the nation's public opinion and therefore helpful to each company in its own area.

The industry cannot participate in all national trade shows or shows of a strictly local or regional character, so the following list of annual or bi-annual shows has been set up for participation as being most important to most A.G.A. members:

1. National Home Builders Show
2. National Association of Master Plumbers
3. National Metal Exposition
4. National Hotel Exposition
5. National Restaurant Exposition
6. National Foundry Exposition
7. National Conference of Food Service Directors
8. National Heating and Ventilating Exposition
9. American Home Economics Association Convention
10. American Dietetic Association Convention.

During the fourth year, an estimated 313,000 persons from all over the United States attended these national shows.

Contacts with the motion picture industry were continued. The influence of motion pictures on the personal tastes of their audiences has long been recognized by the gas industry, as well as other fields. During the year, moving picture studios used 177 gas-burning units in 72 pictures, three television shows, and two commercial productions. For example, two pictures—"The Gas Intruders" and "My Dear Secretary"—showed gas equipment as a result of A.G.A. Promotion Bureau activities, and these are being exploited. Still others offer the same close tie-in of promotional possibilities at the local level.

An increasing number of calls have been made during the year upon the A.G.A. Publicity Department, New Freedom Gas Kitchen Bureau, the Advertising Committee, and the Promotional Bureau for data, photographs, and equipment stories. Many of these have been from schools, universities, and trade associations, and some from individual consumers.

Excerpts from the fourth-year annual report to suscribers of the PAR Plan by Robert A. Hornby, Pacific Lighting Corp., chairman, PAR Committee; H. H. Cuthrell, The Brooklyn Union Gas Co., chairman, A.G.A. General Promotional Planning Committee, and E. P. Noppel, Ebasco Services, Inc., chairman, A.G.A. General Research Planning Committee.

◀*Santa Claus finds this two million cubic foot gas holder of the Southern California Gas Company in Los Angeles a perfect background for yuletide greetings to the industry. Photograph by Mel Jones*

Also an increasing number of articles on gas equipment have appeared in women's magazines of national circulation. The A.G.A. national advertising and many of the promotional efforts have attracted attention to gas equipment as a source of material for those who write articles in this field and have provided many newsworthy items. The gas industry can remember the time when it rarely saw such articles in national publications.

It is now possible to tell the story of the gas industry to a generation of future homemakers. Formerly it was considered improper for busines to tell its story of progress through the schools, but times have changed and schools now seek the assistance which industry can give. Materials furnished the schools is factual, in good taste, and does not over-emphasize commercial aspects at the expense of educational context. Such materials on the gas industry have been prepared in consultation with representatives of the National Education Association and other authoritative teaching organizations. The motion picture, "Winning Seals of Approval," prepared in this manner, has been shown to more than 400,000 persons alone. These motion pictures have been shown also to adult audiences such as women's clubs and men's service organizations.

Nearly 700,000 copies of the picture story book, "The History of Gas," have already gone into schools, telling the story of the gas industry in a form well known to millions of young readers of comic books. This booklet was selected by the National Association of Science Teachers as an outstanding teaching aid, and was mailed by that Association to its entire membership. In the fifth year under PAR a series of strip films aimed at schools will add to the supply of basic materials on hand for this important audience.

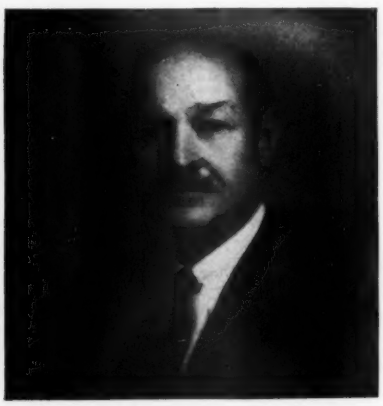
The *second* category of promotional activity was in the field of point-of-sale materials. Too many companies still are unaware of the need for strenous promotional effort on their part. The program for the coming year and for next year places particular emphasis on production of more point-of-sale materials that will reach directly into the homes where gas equipment must go if the gas business is to progress. Already produced are: a folder on automatic gas ranges, "Hot Water Magic" materials, booklets of kitchen designs and loose-leaf sheets, the New Freedom Gas Kitchen booklets, and the current range booklet, "Food is Fun," now in its third printing.

Plans for the fifth year of the PAR Plan include a series of eight individualized booklets, each dealing with a different appliance or service of the industry, and a vailable for use as mailing pieces or for general hand-out. Also planned is a series of short radio commercials for insertion between programs at relatively low cost to sponsoring companies. A new book on hot water in the home is planned as soon as the present supply of "Hot Water Magic" books is exhausted. A new kitchen-planning booklet is also contemplated, and many other inexpensive items for general distribution, such as the New Freedom Gas Kitchen match books which continue to be distributed by the millions.

The *third* category of the PAR promotional program is visual aids. The last war proved the value of visual aids in creating quick and lasting impressions. The gas industry lacks such promotional materials. Appliance manufacturers have produced very few and

Crocker named PAR vice-chairman

Robert A. Hornby, Pacific Lighting Corp., will again direct the PAR Committee as its chairman



Stuart M. Crocker, The Columbia Gas System, Inc., vice-chairman of the industry's PAR program

STUART M. CROCKER, president, The Columbia Gas System, Inc., New York, has been appointed vice-chairman of the Committee on Promotion, Advertising and Research of the American Gas Association, according to an announcement by Robert W. Hendee, A. G. A. president and president, Colorado Interstate Gas Company, Colorado Springs.

The PAR Committee, one of the gas industry's most important committees, has the responsibility of evaluating special needs of the industry in the fields of promotion, advertising and research, and of determining the amounts of money to be raised through industry subscription for these activities each year. In addition to soliciting these funds the PAR Committee establishes the pattern for the allocation of such funds, subject to the approval of the Association's Executive Board and its Finance and Control Committee. Robert A. Hornby, vice-president, Pacific Lighting Corp., San Francisco, Calif., was recently appointed chairman of the PAR Committee for a second term.

Under the current program more than $1,600,000 a year for the next three years will be raised and allocated by the PAR Committee for these activities. More than one-half this sum will be devoted to promotion and advertising to augment and supplement similar activities of gas utility companies which normally spend about $25 million a year and gas appliance manufacturers representing annual expenditures of about $6 million yearly for advertising and promotion.

Mr. Crocker's extensive background in economics and business administration qualify him for the important executive work he will contribute to the Association's program. Before joining Columbia Gas & Electric Corporation as president in November 1943, he served with Radio Corporation of America as solicitor, commercial division, and with the General Electric Company in executive capacities ranging from assistant to the chairman to vice-president, International General Electric Co., Inc., and vice-president of the General Electric Company.

After his service with the North Sea Mine Force, U. S. Navy, in World War I, Mr. Crocker was sent to Europe as secretary of the First Committee of Experts, appointed by the Reparations Committee during the formation of the Dawes Plan. He served in the same capacity with the Second Committee of Experts that drafted the Young Plan.

the Association even fewer. A start has been made but much more material is needed.

The new commercial cooking film, "Where Food is Finest" had its first showings at the A.G.A. convention. The General Promotional Planning Committee has authorized the production, for school use, of a film by Encyclopaedia Britannica Films which will show the importance of the gas industry as a basic American enterprise and a foundation stone of the American economy.

Now in production is a color movie by the New Freedom Gas Kitchen Bureau on the subject of kitchen planning. Several member companies have produced remarkably fine motion pictures which the Promotion Bureau has been able to obtain for distribution to the industry. Next year plans call for printing occasional catalogues showing films that are available. The Promotion Bureau has made available to member companies the finest projection equipment at substantial discounts to encourage wider use of this medium.

The *fourth* promotional function, unified planning and coordinated activities, should receive major emphasis. The Bank's Reviewing Committee pointed out in 1947 that gas companies normally spend $25 million a year and that manufacturers spend an additional $5 million annually in promoting the sale of gas equipment. The $1,000,000 spent by A.G.A. in promotion and advertising is small in comparision, but if a theme can be established for the industry to follow and, through coordination and integration all "guns" can be trained on the same objective, then the full value will be wrung from the dollars spent by utilities, manufacturers, and the Association.

The first project of the Promotion Bureau, during the fourth year was the "Gas Has Got It" campaign to promote automatic gas ranges and the cooking load. Many manufacturers and utilities testify to its effectiveness.

An article in *Electric World* by the general sales manager of an electric utility, stated that the automatic gas range campaign was establishing a level of public acceptance that should knock the wind out of any complacent attitude of the electric utility industry. He called the gas industry campaign "intelligently conceived, practically executed, aggressive and well-financed." This was high praise from a competing interest.

Effective promotion

The second unified campaign, upon a smaller scale, was the current water heater activity, "For Hot Water Magic—Gas Has Got It." More than 160 companies purchased tie-in materials and although this effort did not receive during the past year any support from A.G.A. national advertising, it proved an effective tool in the hands of local companies with a story to tell their customers and an obligation to show their dealers the profit benefits of selling gas water heaters. The next unified activity was the range campaign, "Smart Cooks Know—Gas Has Got It." which started October 1.

A new step is the survey of gas company promotional schedules to determine what gas appliances and gas services the member companies promote as major and minor campaigns during each quarter of the year.

Much is expected of the industry's national advertising and promotion. It is expected to increase the sale of gas and gas appliances, to give encouragement to the personnel of the gas industry, to improve public opinion and thinking as to the industry's future. It is also expected that investment bankers and others interested in the future of the gas industry will be impressed by its aggressiveness in these fields, and that influential magazines and business papers will look upon the industry with increasing favor. These expectations are being met in a growing degree, but sustained effort toward these ends is necessary for full achievement.

The National advertising program of the Association, conducted by the National Advertising Committee, is now underwritten entirely from the PAR Fund and operates functionally within the scope of the General Promotional Planning Committee. However, this advertising is still planned and executed by the National Advertising Committee. This arrangement makes possible the close coordination of advertising and promotion, a noteworthy development which has occurred during the past year and is continuing for the future.

During the past fiscal year when the Association's advertising expenditure on ranges was increased 50 percent, the national advertising of "CP" range manufacturers was tripled and the local advertising of gas companies and dealers were doubled. While the total sales of gas ranges increased 25 percent, the sales of *automatic* gas ranges was tripled. Only a few years ago there was three times as much electric range national advertising as that of gas ranges. In the past year of national advertising, the cooperative unified range campaign resulted in gas range advertising of $2,037,000 compared with $1,986,000 of electric range advertising.

During the fourth year of PAR, the interest of natural gas companies increased in the results of research in the manufacture of high heat, peak, or lowcost gases as more *(Continued on page 45)*

Gas air conditioning

Permanently installed units at Hollywood office provide all-year air conditioning for customers and demonstrate details of gas installation

Gas air conditioning display at the National Orange Show at San Bernardino. Nearly 300,000 people attended this outstanding industry show

At left is view of annual Home Show in Los Angeles where upwards of 100,000 people saw gas air conditioning units. Above is floor display at the Van Nuys office. A 65-foot banner extending diagonally across the office proclaims, "This gas air conditioner cools this office."

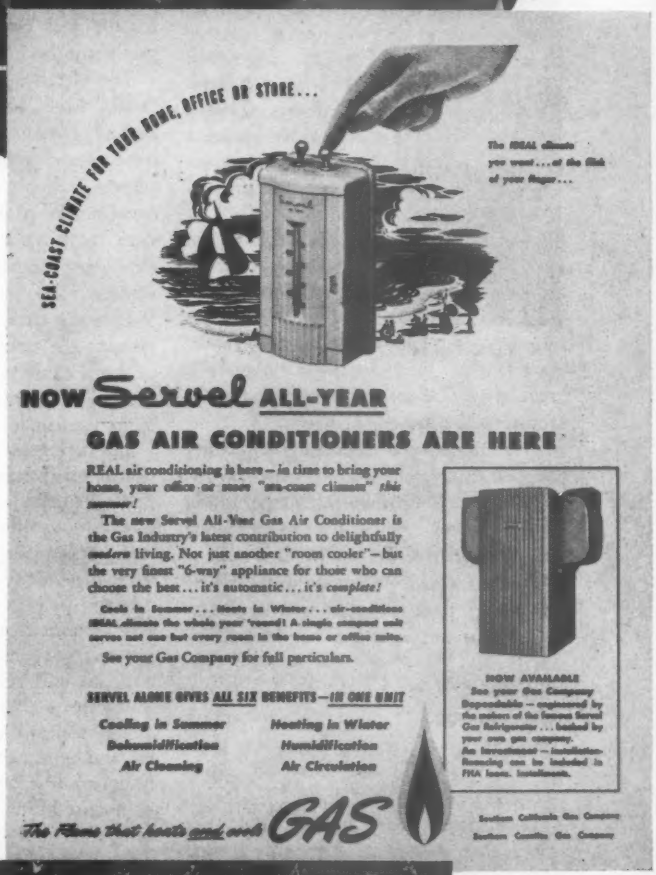
ng pays off

An object lesson in how to make the gas summer air conditioning market pay handsome dividends has been provided by Southern California Gas Co., Los Angeles. As the winner of the first American Gas Association Progress Award for Gas Summer Air Conditioning, sponsored by Servel, Inc., the gas company received a check for $1,000 and a handsome plaque at the 1948 A. G. A. convention in Atlantic City. Gold-plated replicas of the plaque were presented to A. F. Michael, general supervisor of air conditioning sales, and 14 other members of the staff.

One of the first steps in approaching the problem was to define the best market. Twenty fully operative gas air conditioning units were installed on the utility's principal display floors. Four complete units were installed with fans in operation on other company display floors, and eight permanently installed units for all-year conditioning of company buildings were displayed. During the latter part of 1947, permanent installation of eight additional units was authorized for all-year conditioning of still other company buildings.

An aggressive advertising campaign was then launched through the newspapers. The all-year gas air conditioning story was carried to other large and consistent audiences by means of radio. Trade, club, farm and general circulation publications intensified the drive.

Maximum use was made of home and building expositions such as the National Orange Show at San Bernardino and the Annual Home Show at Los Angeles which were attended by more than a quarter of a million visitors. Both of these expositions were manned continuously by air conditioning sales engineers who *(Continued on page 46)*


SEA-COAST CLIMATE FOR YOUR HOME, OFFICE OR STORE...
The REAL climate you want... at the flick of your finger...
NOW Servel ALL-YEAR
GAS AIR CONDITIONERS ARE HERE
REAL air conditioning is here — in time to bring your home, your office or store "sea-coast climate" this summer!
The new Servel All-Year Gas Air Conditioner is the Gas Industry's latest contribution to delightfully modern living. Not just another "room cooler" — but the very finest "6-way" appliance for those who can choose the best... it's automatic... it's complete!
Cools in Summer... Heats in Winter... air-conditions REAL climate the whole year 'round! A single compact unit serves not one but every room in the home or office suite.
See your Gas Company for full particulars.
SERVEL ALONE GIVES ALL SIX BENEFITS—IN ONE UNIT
Cooling in Summer
Heating in Winter
Dehumidification
Humidification
Air Cleaning
Air Circulation
NOW AVAILABLE
See your Gas Company Dependable — engineered by the makers of the famous Servel Gas Refrigerator... backed by your own gas company. An investment — installation financing can be included in FHA loans. Installments.
The Flame That heats and cools GAS
Southern California Gas Company
Southern Counties Gas Company

Pictured above is another view of the impressive gas exhibit at the Los Angeles Home Show. At right is one of a series of newspaper advertisements which covered and recovered the market with the story of gas air conditioning. Below is one of the scores of gas air-conditioned homes which attest to the effectiveness of the Southern California utility's promotional drive.

Next 25 years in accident prevention

BY K. R. MACKINNON

Ebasco Services, Inc.
New York, N. Y.

K. R. MacKinnon

You may ask "Why should anyone worry about the next 25 years in accident prevention work?" You may say "What we need is action *now* to stop the accidents that are occurring every day with distressing regularity. Take care of *today* and the future will take care of itself."

The reason for discussing what may happen during the next 25 years is that accidents follow definite trends, and it is only by reviewing what has happened in the past that we can predict what is going to happen in the future. Only by reviewing past progress can we determine how our future efforts should be directed.

Today accident prevention is a recognized function of good management in business. There are very few utility companies which do not carry on safety work as a part of their normal functions.

Twenty-five years ago we could not make that statement. Although at that time many utility companies were carrying on safety work, a great many more were doing little or nothing about accidents to their employees.

It was not until 1926 that any effort was made to find out how many fatal lost-time accidents were occurring in the electric industry. During that year statistics were collected for 1923, 1924 and 1925, and have been collected every year since.

The gas industry started collecting statistics in 1919 and has made them public since 1929. The accident records for the Bell Telephone Companies as a group run back to 1922.

The electric, gas and telephone companies have worked together to their mutual advantage on such matters as conduit and pole line locations in the streets and highways and other joint construction problems. They can profit even more by a continual exchange of experiences in the field of accident prevention.

Looking back over the years and reviewing the safety work done, a number of items come to mind which have been helpful in bringing the accident record to its present level.

Improvements in design; safety activities on construction jobs; getting operating men interested in safety, as an *operating* problem; stressing of foreman responsibility; development of company rule books; increased use of rubber protective devices; company safety committees; organized safety departments; competitions on company, regional and national bases; increased committee activities on national and regional scales; increased executive interest and a somewhat greater feeling of responsibility for accidents; job analysis —practiced in recent years by some companies but still being done on a meager scale.

What are the fundamentals of industrial accident prevention?

(1) Every position of *authority* in an organization carries the *responsibility* that goes with the job. The responsibility for accident prevention is a function of the operating organization—headed by the president and general manager. The duties of a safety director are those of a staff officer—to advise, inspect, coordinate, prepare and give impetus to plans. It is the duty of the line organization to carry out the plans.

(2) A *safe* way can be found for every operation needed in our business. It is the duty of top management to see that the work is done the safe way. That is true of every type of operation in our industry. We should begin to put down on paper what the right ways are, and follow this up by *seeing that each operation is done the right way.*

We can go just so far with the methods we have been using, together with all the inspirational efforts that tend to create a safety consciousness among employees. But as long as individuals are permitted to continue using individual judgment on *methods of doing work,* especially in hazardous situations, I am afraid we may be on the up-grade in accidents of all kinds.

Let us take a look at the gas industry's lost-time and fatal rates from 1929 to 1947, the period during which statistics have been made public. (Chart 1.) There is a similarity to the electric curves—the increase in lost-time accidents since 1932, particularly marked the last four years—the lack of any improvement in the fatal accident rate since 1933. *The Fatal rate in 1947 was actually higher than in 1933.* Apparently the gas industry suffers from the same fundamental trouble as the electric; in fact, the trends are a little worse.

Now, let us look at comparative curves of lost-time accidents for all three industries. Chart 2 tells its own story and provides a striking challenge to the electric and gas utilities. The telephone people had as many accidents as the electric had in 1922, but now look at them. Look at the trends since 1939—electric and gas going steadily *up* while the telephone keeps going *down.* I hope electric and gas men will show a copy of that chart to the executives of companies and to their safety committees, and ask them "How come?"

At this point let me say that all these charts are average figures. Some telephone companies' results are substantially better than others. Some power and gas companies are also substantially better than others, and the better ones may compare favorably with the telephone figures.

Chart 2 is a record of the general run of lost-time accidents such as slips and falls, automobile collisions, injuries from tools, falling objects, and others. I don't think electric and gas men are

---

Extracts from paper presented before Public Utilities Section National Safety Congress, in Chicago, Ill., on October 19, 1948.

subject to any more of those types of hazard than the telephone men are, but their records are about ten to 14 times as bad respectively. *Why?*

Of course, all comparisons between industries are open to criticism just as they are between different companies. Perhaps there may be differences in the care taken to get men back to work to avoid reportable accidents. That occurs in many companies in all industries, especially when they are entered in safety contests. In any event, it can't have a great effect on a national scale. Remember the telephone record shown is for *male plant employees*. It is not diluted by counting the girls in the traffic department. The electric and gas figures are for *all* employees.

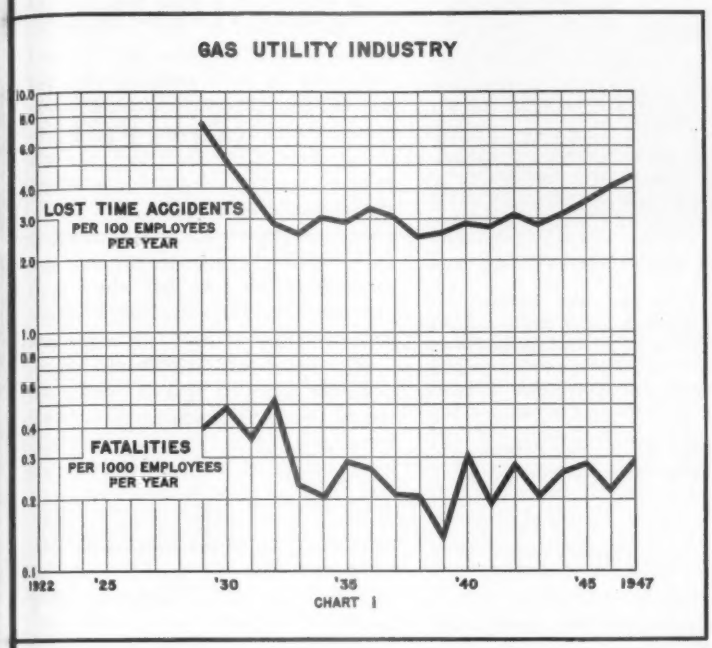


CHART 1

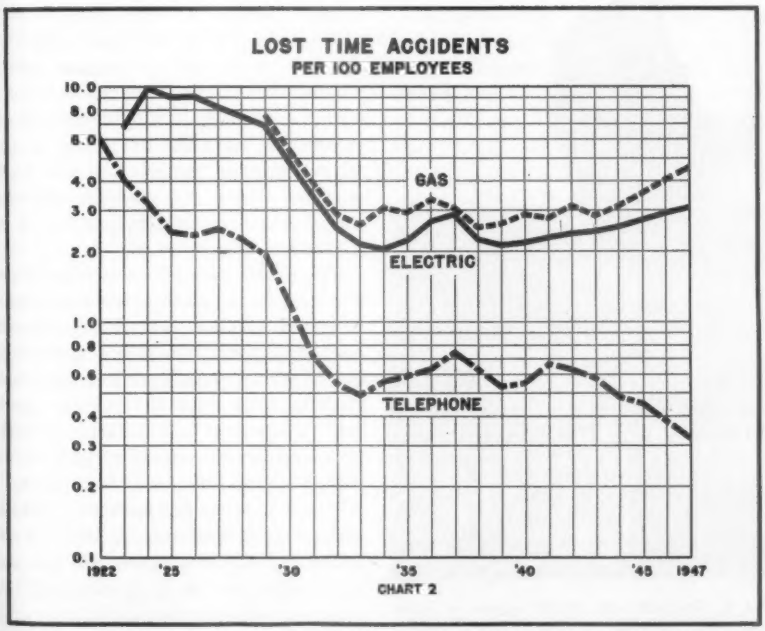


CHART 2

There must be some reason for the fact that the communications industry as a whole leads *all* industries in the tabulations of frequency and severity published by the National Safety Council.

For one thing, the Bell companies have centralized supervision and standardized practices. Because of this they can obtain much greater uniformity in safe practices than either of the other utilities. In the Bell system a line truck and a service wagon in Maine are equipped exactly like their counterparts in Florida or Texas. The system has job analysis worked out to a fine point—there is a right and a wrong way to do everything and they teach their men the *right* way—*one* right way which is adopted as a standard throughout the country.

A second feature of Bell Telephone operations is their training courses for supervisors. These are operating courses, primarily designed to teach men to do their operating and maintenance work most efficiently. They have developed into safety courses. By teaching men the *right* way they teach them the *safe* way. These courses comprise:

A. *Vocational instructor training,* in which supervisors are taught how to teach their men. We all know that the best way to learn a subject thoroughly is to teach it to somebody else.

B. *Human relations* in which supervisors are taught how to win and maintain the cooperation of their men on the job.

C. *Planning supervisory jobs,* in which the supervisors are taught how to plan their work and carry out their supervisory responsibilities.

A third feature of Bell Telephone operations, which again stems from centralized supervision, is executive interest in accident provision. When a head office is thoroughly sold on safety, it can have a great effect on the interest maintained by executives in subsidiary companies.

Many good ideas in safety, developed by companies of the electric, gas and telephone utilities, have been exchanged and adopted by other companies in these industries. Since the problems of all three utilities are identical we may look forward to further improvements by continuing such cooperative methods.

What then must we in the electric

and gas industries do to turn those curves down?

First and foremost in importance is the matter of executive interest. While I have never yet seen an operating company president who did not say he was interested in accident prevention, I have met comparatively few who actually work at it.

Many executives make a speech at the annual safety banquet, hand out a few diplomas to first-aid teams, then settle back and let the safety director and the safety committees look after the actual work for another 12 months. They may call in their top men when some exceptionally bad accident has occurred, perhaps several men killed—and say—"This sort of thing has to stop!"—but then become immersed in operating details and do little or nothing until the next time.

We speak of "executive interest" in accident prevention as if it were something the safety director should plead for. Safety men of the industry frequently act as if they look upon accident prevention as *their* responsibility, and they ask for *cooperation* from top management, instead of trying to show that management where *their* duty lies and pointing out what *they* (the executives) should do about it.

Next in importance in our "things to do" is to develop job analysis on a major scale. Safety men talk about it as "on the job safety" but we all know that safety should start *before the job.*

We should have handbooks of instructions on every type of work, and should discuss the hazards of each job before it is tackled. Too many men have gone to their death because the foreman said "Let's go boys" without explaining in detail how the job was to be done, or checking up to see if he or his men understood what the hazards were. Job analysis is a major job for you operating men.

As an example of the extent to which job analysis can be developed, the Bell system has a 35-page pamphlet on extension ladders.

Third big job in the years ahead is for all companies to develop sound training programs. Many of our companies have schools for linemen where apprentices learn the rudiments of distribution work. Some companies have training classes for foremen. But industry wide, our training program is in a primitive state.

We always have a lot to *say* about the foreman in accident prevention work. We have laid heavy responsibilities on him, and have expected a great deal from him, frequently without too much backing from those in authority above him. We expect him to have remarkable qualities of leadership and yet do comparatively little to develop them.

The qualities of leadership which make a good foreman are hard to describe, but they may perhaps be grouped best under the word "personality." A *good* foreman *(Continued on page 46)*

Rochester utility marks centennial

ROCHESTER Gas and Electric Corporation has concluded a centennial celebration that included dedication of a new plant, cutting of a huge birthday cake with prizes for guessing the number of raisins baked into it; publication of a twenty-page centennial book, presentation of an employee centennial show for two nights in one of the city's largest theaters, and other features.

The big birthday cake was on display for 30 days and more than 5,000 people ventured a guess as to the number of raisins it contained. At the cake-cutting ceremony Mayor Samuel B. Dicker and Councilman Norman A. Kreckman did the honors and samples of the cake were passed out to hundreds of onlookers. The whole program was broadcast over Station WARC, with Robert E. Ginna, company vice-president, describing the high spots in the first century of operation.

The employee show included a half-hour broadcast over radio stations WHAM and WHEC telling in historical narrative, dramatic action and music, how the utility's growth and development have paralleled the growth and prosperity of the community. The radio presentation was done entirely by company employees and attracted much favorable press comment.

In addition to the other centennial activities, the Rochester utility dedicated a new electric generating station on Lake Ontario on October 27, naming it Russell Station after Herman Russell, former president and now chairman of the board of directors. Mr. Russell was president of the American Gas Association in 1937. (See page 33, October, 1948, A. G. A. MONTHLY for advance story.)

Robert E. Ginna (top, left) with Councilman Norman A. Kreckman and Mayor Samuel B. Dicker at cake-cutting ceremony. (Bottom) Employee show which included half-hour radio broadcast

Advance in modulated heating

Figure 1. Apparatus used in investigation of warm air furnaces operated at reduced gas input rates

Research points way to improved gas home heating

A PAR activity Improved home heating comfort — elimination of so-called "cold 70"—through modulated operation of warm air furnaces has become a subject of increasing interest in the past few years. The numerous claims and counter claims concerning such a method of operation fall into a familiar pattern running the entire gauntlet usual to a new approach. Differentiation between opinions consequently is difficult since, as is also usually the case, the supporting facts are still largely obscure or uncharted.

As a first step towards isolating factual information helpful to a more scientific appraisal, the American Gas Association Committee on Domestic Gas Research, authorized a study of experimental operation of several contemporary types of furnaces at reduced gas input rates to the burners. This study (Project DGR-5-CH) is entitled "General Study of Performance of Central Heating Gas Furnaces Under Conditions of Varying Gas Inputs." Keith T. Davis is technical adviser for the project, representing the A. G. A. Technical Advisory Group for Central Gas Space Heating Research.

Effects upon thermal efficiency, combustion, and maximum and minimum heating element temperatures were probed. Performance was noted for both continuous burner operation and for a schedule of short cycles of various durations. It was reasoned that initial information along these lines would assist designers in improving the over-all performance of heating systems and thus be of direct value to the industry. The data might also serve as a guide for the formulation of basic requirements covering the testing of such equipment, should the need arise.

Results of the study now have been published and released in A. G. A. Research Bulletin No. 51, "Effects of Modulated Operation on Performance of Gas Warm Air Furnaces." ($1.75 per copy) This is the second bulletin devoted to central gas space heating research published by A. G. A. Laboratories.

A summary of results for three contemporary furnaces investigated is presented in Table 1. A general view of the equipment employed in the investigation is shown in Figure 1. The furnaces were all types approved under American Standard Approval Requirements for Central Heating Gas Appliances. They consisted of a gravity model equipped with a steel heating element having a downdraft flueway, a forced-air design with a cast-iron heating element and updraft flueway, and a forced-air steel furnace of the downdraft type. As indicated in the table all three were operated continuously and also cycled. It will be noted that an initial 85° F warm air outlet rise for forced air and 150° F for gravity furnaces were employed as an operating condition for one set of results. For another set the forced-air types were operated at a constant 85° F warm air outlet rise.

The table is largely self-explanatory except for the term "apparent thermal efficiency." Inasmuch as the investigation was concerned primarily with changes in thermal efficiency rather than actual efficiencies, and a simple, quick and effective method of making several rapid determinations was necessary, it was decided to report data in terms of apparent thermal efficiency as determined from flue losses. The term also carries a note of warning since furnaces were operated without a normal heating load. Under standard testing procedure in which an imposed load of two-tenths static pressure is employed, this method has been found satisfactory for judging the performance ability of a furnace. While the warm-air outlet temperature-rise conditions employed in the investigation provided a somewhat similar load, it does not necessarily follow that this would be true for modulated heating.

Table 1 indicates the effects of reduced gas input rates upon apparent thermal efficiency, employing natural gas. It also indicates when condensation was considered to be a possibility. Similar results were obtained with manufactured gas, values for apparent

thermal efficiency not exceeding one percent variance from those for natural.

It should be noted that small reductions in apparent thermal efficiency at reduced input rates were recorded regardless of whether cycling or continuous operation was employed. Although efficiency remained at approximately the same level when the rate of warm air flow through the furnace was not varied (initial 85° F and 150° F warm-air outlet rise) the warm air temperature rise through the furnace decreased

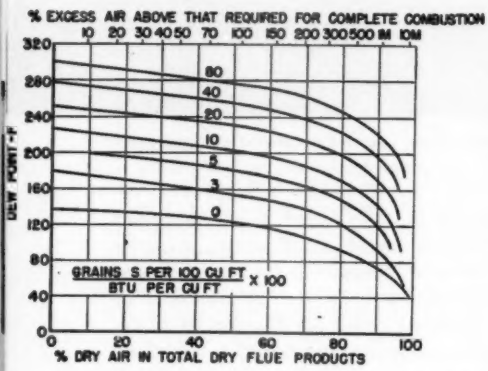


Figure 2. Curves showing dew points for gases

to only a few degrees above room temperature as the gas input was decreased.

During laboratory tests condensation was not observed. However, condensation is indicated as a possibility in those instances where it might be expected under certain operating conditions. The major factor considered in indicating possible condensation was the sulfur content of the gas employed. Excessively low ambient temperature, usually in combination with sulfur content, was another consideration. In a few cycling instances condensation became possible for short periods of the cycle even with sulfur-free gases.

A sulfur content of 15 grains per one hundred cubic feet of gas was employed as a yardstick in theoretical considerations for the study. A literature search concerning the characteristics of flue gases with respect to dew points and condensation was made as part of the investigation. It was found that sulfur content of fuels had a major bearing on the dew point of their flue products. At the same time the dew point, not being a fixed and definite property of the flue gases themselves, consequently may depend on conditions of appliance operation, design, extent of heating element corrosion, and the composition of the fuel gas.

Curves for a wide range of conditions, developed by Yeaw and Shnidman,[1] were employed as most applicable to the study. Figure 2 is a reproduction of one of these and was employed to chart condensation possibilities noted in Table 1. This particular graph charts the dew point when sulfur content, percentage of excess air, and B.t.u. value of the fuel gas are known. Sulfur content in grains per 100 cubic feet is divided by the B.t.u. content per cubic foot of the gas and the product multiplied by 100 as shown on the graph. In case no sulfur is present the value of this expression is zero and consequently the zero curve on the graph is employed. The percentage of excess air is found on the upper abscissa and a line drawn vertically downward until it intersects the appropriate curve. The dew point is then read on the ordinate.

While the study deals with the occurrence of dew point conditions contributing to corrosion it is recognized that corrosion may occur at temperatures above the dew point. An analysis of such conditions is being carried on in another project sponsored by the Committee on Domestic Gas Research and initiated at the suggestion of the Technical Advisory Group for Central Gas Space Heating Research. This work is known as Project DGR-4-CH, "Research in Corrosion, Oxidation, and Deterioration of Metals under the Influence of Products of Combustion of Gaseous Fuels."

Generally speaking, modulated heating from the technical viewpoint does not seem to possess any unusual difficulties. Within the scope of the A. G. A. Testing Laboratories project it appears that modulation of input is feasible from the standpoint of heat exchanger operation and thermal efficiency if the proper design factors are present in the appliance and if actual operating conditions are checked to insure that excessive condensation will not occur. Indications are that conversion of many contemporary appliances to modulated operation can be made satisfactorily if suitable precautions are taken.

Any decided trend to modulated heating, of course, would require investigation of further technical phases such as automatic controls for effecting safe operations under all possible field conditions. Another feature that probably would require study is that of effects on chimney flues. Useful information helpful towards the consideration of the chimney phase is contained in the new bulletin.

[1] J. S. Yeaw and L. Shnidman, Power Plant Engineering, January, February, March, 1943.

TABLE 1

Type of Operation		*Gravity Furnace*			*Cast Iron Forced Air Furnace*			*Steel Forced Air Furnace*		
Continuous Operation at Initial tial 85° F. Forced Air and 150° F. Gravity Warm Air Outlet Rise	% of Full Rate	99.3	55.0	10.3	100.0	57.3	15.0	100.4	48.0	3.94
	% Apparent Eff.	75.3	70.3	69.5	78.2	77.4	76.8	82.8	82.4	82.3
	Condensation	None	None	Poss.	None	Poss.	Poss.	None	Poss.	Poss.
Cycling Operation at Initial 85° F. Forced Air and 150° F. Gravity Warm Air Outlet Rise	% of Full Rate	90.0	50.0	10.0	90.0	50.0	10.0	90.0	50.0	10.0
	% Apparent Eff.	74.6	70.3	69.5	78.1	77.4	76.8	82.7	82.4	82.4
	Condensation	None	None	Poss.	None	Poss.	Poss.	Poss.	Poss.	Poss.
Continuous Operation with Constant 85° F. Warm Air Outlet Rise in Each Instance	% of Full Rate				100.0	56.7	25.9	100.4	48.2	10.9
	% Apparent Eff.				78.2	72.5	68.5	82.8	79.2	71.4
	Condensation				None	None	None	None	None	Poss.
Cycling Operation with Constant 85° F. Warm Air Outlet Rise in Each Instance	% of Full Rate				90.0	50.0	10.0	90.0	50.0	10.0
	% Apparent Eff.				77.8	73.1	—	82.2	80.4	72.6
	Condensation				None	Poss.	—	None	Poss.	Poss.

95 Michigan gas utility aims at domestic range target

A PAR activity Upon receiving a copy of the American Gas Association executive and dealer portfolios on the 1948 Smart Cooks Know—Gas Has Got It, promotional campaign on domestic gas ranges, we began to consider plans for a meeting with the gas appliance dealers. Even though some dealers were not getting all the ranges that they needed, it became increasingly apparent that we were meeting the well-known buyers' market head on and that not only to maintain but to increase gas range sales would require promotional stimulation.

With the excellent dealer portfolio on hand and the many promotional items made available through the American Gas Association Promotion Bureau and described in the executive portfolio, we felt that we had all the basic requirements for a fall campaign and for a message to dealers. Therefore, we planned a breakfast meeting for dealers at a local hotel on Wednesday, October 27.

Before announcing or inviting the dealers to this meeting we approached them with a cooperative advertising plan. This consisted of full-page advertisements to appear weekly from about the middle of October until Thanksgiving. At least four of these advertisements have appeared already and we have had excellent cooperation from the dealers.

Each full-page advertisement consisted of a two-line eight-column streamer such as "New CP Automatic Gas Range Eliminates Long Kitchen Hours," "Meal Cooks Automatically on CP Gas Range While You're Away." Photographs and additional copy were used to describe the features and services of a modern automatic gas range. The streamer, picture and copy took up about 35 percent of each page, which was paid for by the company. The remainder of the page was devoted to individual advertisements of the dealers which they paid for at their own rates. This same method has been used before with considerable success in promoting other gas appliances such as laundry dryers and incinerators.

BY W. H. KURDELSKI

Residential Sales Manager, Grand Rapids Division, Michigan Consolidated Gas Company

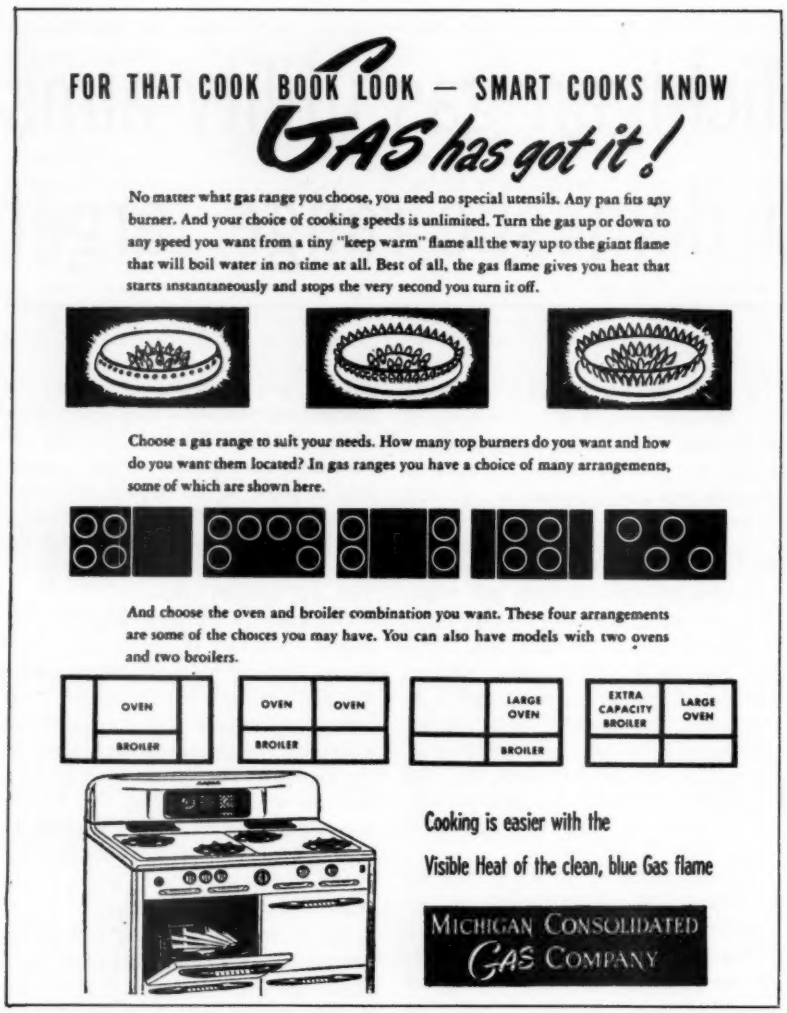
Our invitation to the dealer meeting was addressed to the proprietor, department manager and distributors. About 60 dealers attended. Purpose of the meeting was to show dealers the enormous promotional help they are given in the sale of gas appliances on a national scale and locally by the utility. We also wanted to bring home to them the soundness and strength of the gas industry and its enormous growth during the past 15 years, all despite the tremendous promotion and propaganda of the electric industry which has not made such great strides in the domestic field as some of the dealers have been led to believe. We found that these facts were a revelation to most of the dealers present, and we have considered them our friendly allies.

Our meeting was opened by my company's supervisor of dealer sales, Carl Huber. Eleanor Morrison, home service director, outlined her department's activities and showed how they create an acceptance for automatic gas ranges. As the main address, I took about 30 minutes for a talk based on the A.G.A. dealer portfolio which I followed page by page, citing facts nationally, followed by the same facts and figures as applied locally.

All of the advertisements run by the company in the local newspapers and most of the national advertisements run during the past year were modeled on long strips of paper about a yard wide and placed around the walls of the room. The three slogans of the campaign—*Smart Cooks Know Gas Has Got It, For That Cook Book Look—Gas*

Breakfast meeting of gas appliance dealers sponsored by Michigan Consolidated Gas Co., to show dealers enormous promotional help they are given by the utility in sale of appliances

95 Capitalizing on the fact that in city after city 95 out of a 100 homes cook with gas, the Michigan utility used this number as a key symbol.


FOR THAT COOK BOOK LOOK — SMART COOKS KNOW
GAS has got it!
No matter what gas range you choose, you need no special utensils. Any pan fits any burner. And your choice of cooking speeds is unlimited. Turn the gas up or down to any speed you want from a tiny "keep warm" flame all the way up to the giant flame that will boil water in no time at all. Best of all, the gas flame gives you heat that starts instantaneously and stops the very second you turn it off.
Choose a gas range to suit your needs. How many top burners do you want and how do you want them located? In gas ranges you have a choice of many arrangements, some of which are shown here.
And choose the oven and broiler combination you want. These four arrangements are some of the choices you may have. You can also have models with two ovens and two broilers.
OVEN
BROILER
OVEN
OVEN
BROILER
LARGE OVEN
BROILER
EXTRA CAPACITY BROILER
LARGE OVEN
Cooking is easier with the
Visible Heat of the clean, blue Gas flame
MICHIGAN CONSOLIDATED GAS COMPANY

Effective advertisement run by Michigan Consolidated tying-in with A. G. A. range campaign

Has Got It, and *For Profit Smart Dealers Know—Gas Has Got It,* were mounted separately on the wall above the speaker's table and uncovered during the course of the talk.

I began by pointing out the record expenditures which the American Gas Association, utilities and manufacturers are making to promote automatic gas ranges. More than 60 million advertisements in this campaign will appear in Michigan alone.

"This time it is the Domestic Range Committee of the American Gas Association which has come forward with a comprehensive new merchandising package to promote the sale of all types of gas ranges," I remarked. "This promotion will augment the national advertising campaign and is designed for use at the local level by utilities and dealers.

"In Grand Rapids there will be by the end of this year more than 2,500 new homes started, and there probably will be as many in 1949. Every home needs a range and the modern automatic gas range is the overwhelming preference. Then there is the range replacement market.

"In Grand Rapids proportionately there must be about 25,000 ranges more than ten years old and about 12,000 or 13,000 more than 15 years old. With 60,000 gas customers in the Grand Rapids district it doesn't appear possible to saturate this market.

"It might also interest you to know that in the last two normal years before the war, 1940 and 1941, there were more than 900 displacements of competitive ranges on the gas lines in the Grand Rapids district. And you might be interested in knowing that they're coming out at a pretty good clip right now. That's what we mean when we say Gas Has Got It. That is why in city upon city across the nation 95 out of 100 homes cook with gas. Let's take a look at our own figures for Grand Rapids. . . ."

After reviewing point by point the factors which make the modern automatic gas range so desirable, I introduced a surprise gag. Before the arrival of our guests we had put at each place on the table a 19-cent rubber ball bearing the figure *95*. Alongside each ball was a hickory nut, bearing the number *5*.

"I think it is common knowledge," I continued, "that the hickory nut is a tough nut to crack. I have known people to break their teeth trying to get the little meat there is in a hickory nut.

"We have referred to the 95 homes out of 100 in city after city as cooking with gas. We have also said—and I believe you agree—that Grand Rapids is certainly a gas town. Here is your target, gentlemen." I held up a large white beach ball with a large *95* printed on it.

"This is your market right here. It's soft to the touch." I gave the ball a hard squeeze. "And this market is ready to bound into your lap if you are willing to take the ball and run with it. Here it is!"

I tossed the ball to the crowd.

Following this talk, the different promotional items were shown and suggestions made for their use. The dealers were offered these items at half our cost and substantial quantities were purchased, particularly the pot holders and cook books.

Results as far as they can be judged now have been most satisfactory. It is noticeable that in many dealer stores, gas ranges have been moved to the best locations on the floor.

Tired businessman

● Though many a plan
His reading curtails
One volume he'll scan:
The volume of sales!

—Avery Giles, *Printers' Ink*

Better performance results when employee selection is aided by proved psychological tests

Testing for meter readers

MANY companies have found that psychological tests can be useful in the selection of qualified personnel. Much evidence has been accumulated to show that while they do not replace the interview, the application blank and other hiring techniques, well-standardized tests increase the probability of selecting personnel capable of meeting job requirements.

Many organizations which are convinced of this are nevertheless not in a position to conduct the studies required to produce practical and useful instruments. In some instances, the number of employees on any one job is too small for such research; in others, technical personnel to carry on the necessary studies are not available; in some cases, other necessary facilities are lacking.

Under such conditions much can be accomplished by pooling the efforts of organizations with similar problems. The American Gas Association has done this in a study on the use of tests in the selection of meter readers recently completed by the A.G.A. Personnel Committee, working through a Subcommittee on Employment Tests. It is hoped that this is only the first of a series of studies which will bring the cooperative effort of the entire industry to bear upon employee selection problems of interest to the industry as a whole.

Before any test can be used for selection purposes evidence must be obtained that there is really a relationship between scores and performance on the job. This is particularly necessary because many tests which "look good," which have what the psychologist calls *"face validity,"* turn out as having no real value in "separating the goats from the sheep," that is, in distinguishing between poor and good job performance. The value of any proposed test for selection can be determined or, in more technical terms, the *validity* of the tests can be established in one of two ways:

(1) By comparing the test score of applicants with job performance after employment.

(2) By giving the tests to employees and comparing the tests results with records already available of their performance on the job.

The Subcommittee on Employment Tests decided to use the latter method of assessing the usefulness of tests in the selection of meter readers, largely because this was the quickest way of gathering facts on the possibility of using tests for this purpose. The preliminary steps taken in investigating the possible value of tests in selecting meter readers were as follow:

(1) A group of seven tests, including several which had been used with success by Philadelphia Electric Company, was chosen as the trial battery.

(2) The tests were administered under standard conditions to meter readers on the payroll of three companies;—The East Ohio Gas Co., Washington Gas Light Co., and the Newark unit of Public Service Electric and Gas Company, including a total of 83 meter readers.

(3) Each company furnished to the committee a record of the job performance of the meter readers in the form of the number of meters read and the number of subtraction errors for a minimum period of six months.

(4) The "number of meters read per subtraction error" was calculated for each meter reader. This was used as the measure (or *criterion*) of the meter reader's performance on the job.* On the basis of these figures the meter readers in each company and, finally the meter readers of all three companies were classified into two groups, the first including the *better* 75 percent of meter readers, the second the *poorer* 25 percent of meter readers.

(5) Comparisions were then made to determine wether meter readers classified as *better* tended to make higher scores on the tests than those classified as *poorer*. This proved to be true in the case of three of the seven tests, including the Number Checking Test, Number Copying Test, Minnesota Clerical Test (Number Checking). Of course, as is to be expected, even these tests were far from perfect in distinguishing between *better* and *poorer* meter readers. Some of the *better* meter readers obtained low scores and some of the *poorer* obtained high scores on each of the tests. However, the over-all results showed an acceptable statistical relation between scores on each of the three tests and performance on the job.

(6) The next step was to set up for each test a passing or *critical* score selected in such a way that, when the tests were put into use for hiring, the industry would be in a position to ac-

"Psychological Tests for the Selection of Meter Readers" was prepared by Dr. Morris S. Viteles and John H. Donnelly, Philadelphia Electric Co., and A. R. Laney, Jr., Washington Gas Light Company.

*It was originally thought that a combined criterion of "meters read per over-and under-reading" and meters read per subtraction error could be used. As the investigation developed, it was found that not all companies could supply data on "meters read per over- or under-readings" and, as a result, only "meters read per subtraction error" was used in assessing the proposed tests.

cept the highest possible number of *better* meter readers while, at the same time, rejecting the highest possible number of *poorer* meter readers. A further analysis also showed that just as good results could be expected from requiring a man to meet the passing or critical score on any two of the three tests as could be anticipated from insisting that he pass all three of the tests.

Chart 1 shows what would happen if the 83 meter readers involved in the study had been accepted or rejected on the basis of the requirements that an applicant meet the passing or critical score on two of the three tests. It is evident that 33 of the 83 meter readers would have been rejected from employment. Of these, 15 or 45 percent were among the *poorer* meter readers, and the remaining 17 or 55 percent among the *better* meter readers. Fifty of the meter readers would have been accepted on the basis of the provisional test standards. Of these, 43 or 86 percent were actually classified as *better* and the remaining seven or 14 percent as *poorer* meter readers.

These ratios must, of course, be interpreted in the light of the fact that the original clasification of meter readers as *better* or *poorer* was based on a 75-25 percent grouping. This leads to the expectation that of men hired *without any tests* whatsoever, 75 percent will prove to be as good as those classified as *better* meter readers and 25 percent as bad as those classified as *poorer* meter readers. The improvement to be anticipated from the use of tests could amount to an increase in the percentage of men who would function as well as the *better* meter readers to 86 and to a decrease in the percentage working at the level of *poorer* meter readers to 14. In other words, it would be expected that of every 100 men hired through the use of the three tests, approximately 86 (instead of 75) would prove to be as good as the present *better* meter readers and 14 (instead of 25) would prove to be as bad as the present *poorer* meter readers.

This gain is far from phenomenal, particularly since a certain percentage of potentially satisfactory men would be rejected by the tests, but it nevertheless seemed sufficient to warrant a further exploration of the possibilities of the tests especially since statistical evidence showed that the results described above were not obtained by chance.

The next step in the investigation was to check or, in technical terms, cross-validate the findings by applying the test to meter readers in the employ of other companies. The Brooklyn Union Gas Company, Cincinnati Gas and Electric Company, and units of Public Service Electric and Gas Company of New Jersey (excluding Newark) agreed to cooperate in this phase of the study, and made available the performance records of 124 meter readers. The tests were given to these men.

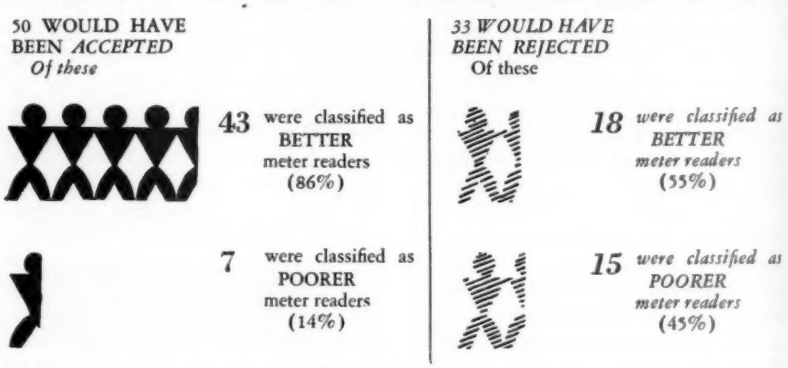
By applying the same passing scores, it was found that 29 of the 124 meter readers would have been rejected from employment. Of these, 16 or 55 percent, were among the *poorer* meter readers and 13 or 45 percent among the *better* meter readers. Ninety-five of the meter readers would have been accepted on the basis of the test standards. Of these, 78 or 82 percent were actually classified as *better* meter readers and the remaining 17 or 18 percent as *poorer* meter readers.

Again, statistical evidence showed that these results were not obtained by chance. In other words, from the results on the second independent sampling of meter readers, it would be expected that of every 100 men hired through the use of the three tests, approximately 82 (instead of the 75 hired without tests) would prove to be as good as the present *better* meter readers and 18 (instead of the 25 hired without tests) would prove to be as bad as the present *poorer* meter readers.

The experience with the tests indicated that they are promising instruments for the selection of meter readers. The benefits to be obtained may be small from some points of view but, nevertheless, they can be important from the viewpoint of greater accuracy in meter reading, especially if many meter readers are to be hired. However, an analysis of the results of individual companies cooperating in the study showed that while some of the companies could expect to obtain even better results than those referred to, there were other individual companies for which no significant relationship was revealed between test scores and the performance of meter readers. One possible cause of this is

CHART I

BY REQUIRING 83 METER READERS* TO MEET THE PASSING OR CRITICAL SCORE ON 2 OF THE 3 TESTS IN THE PROPOSED METER READER BATTERY


50 WOULD HAVE BEEN ACCEPTED
Of these
33 WOULD HAVE BEEN REJECTED
Of these
43 were classified as BETTER meter readers (86%)
7 were classified as POORER meter readers (14%)
18 were classified as BETTER meter readers (55%)
15 were classified as POORER meter readers (45%)

*Employed by the East Ohio Gas Company, Washington Gas Light Company, Public Service Electric and Gas Company of New Jersey (Newark unit).

Smiles

● A smile costs nothing, but it gives much. It enriches those who receive it without making poorer those who give it. It takes but a moment, but the memory of it sometimes lasts forever. No one is so rich or mighty that he can get along without it, and no one is so poor but what he can be made richer by it. A smile creates happiness in the home, fosters good will in business, and is the countersign of friendship. It brings rest to the weary, cheer to the discouraged, sunshine to the sad, and it is nature's best antidote for trouble. Yet it can not be bought, borrowed, begged or stolen, for it is something that is of no value to anyone until it is given away. Some people are too tired to give you a smile. Give them one of yours, as no one needs a smile so much as he who has no smile to give.—E. Carl Sorby, *George D. Roper Corp., at gas appliance dealers meeting, A. G. A. convention.*

the fact that there were marked differences in test scores among the meter readers of the various companies involved in this study. In some companies there were many low scores; in other companies there were very few low scores, and vice versa.

The data also suggested that there are differences among companies in the level of performance of meter readers and in age and length of service distribution. From these supplementary findings, it is necessary to conclude that the efficiency of the three tests in hiring could be greatly improved if passing scores were established for each individual company rather than for the industry as a whole. In other words, it will be necessary for each company to conduct a check validation of the tests and establish "critical scores" applicable to the company's situation to make certain of obtaining satisfactory results through their use. This can be done as follows (the methods are listed in order of preference):

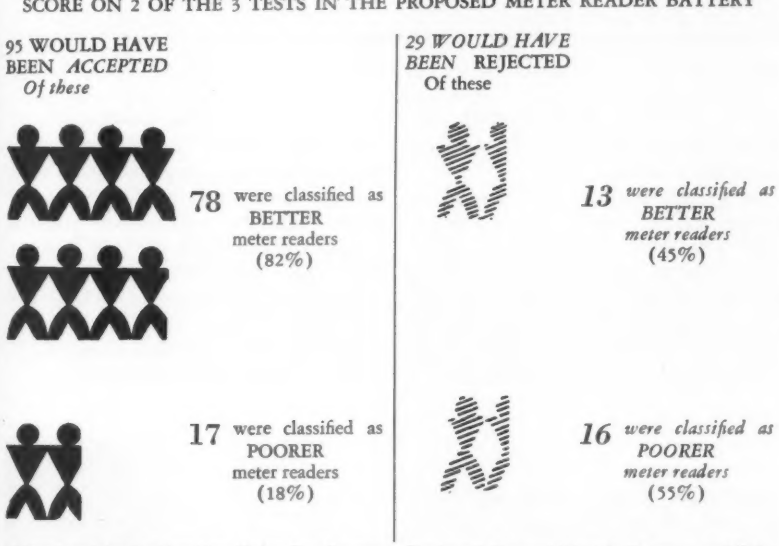
(1) Give the tests to new meter readers who will be hired without reference to test results. This should be continued through the two steps of obtaining an adequate basis for establishing "critical scores" on one group of newly employed meter readers, and making a check validation of these "critical scores" on a second group of newly employed meter readers. This method requires considerable time, because in most companies a long period would elapse before a sufficient number of new meter readers would be hired to meet the needs of the two steps.

(2) Give the tests to present meter readers, and compare the results with the performance of these men on the job as a basis for setting "critical scores" applicable to the company operation. These "critical scores" will then be further validated by giving the tests to new meter readers who will be hired without reference to test results. Later, a comparision will be made between the performance of these new men on the job and test scores as a means of checking the efficiency of the established "critical scores."

(3) A third method, which may be used if neither of the first two is practicable in the company concerned because little is going on in the way of hiring new meter readers, is to divide the present group of meter readers into two sub-groups; to use one sub-group as a basis for establishing those "critical scores" which make for most efficient selection and the second sub-group for the check validation of these "critical scores."

CHART II

BY REQUIRING 124 METER READERS* TO MEET THE PASSING OR CRITICAL SCORE ON 2 OF THE 3 TESTS IN THE PROPOSED METER READER BATTERY


95 WOULD HAVE BEEN *ACCEPTED*
Of these
78 were classified as BETTER meter readers (82%)
17 were classified as POORER meter readers (18%)
29 *WOULD HAVE BEEN* REJECTED
Of these
13 *were classified as BETTER meter readers* (45%)
16 *were classified as POORER meter readers* (55%)

*Employed by the Brooklyn Union Gas Company, Cincinnati Gas and Electric Company and Public Service Electric and Gas Company of New Jersey (Newark unit excluded).

In any event, the company will have to have available some objective way of checking on the performance of meter readers and classifying them with respect to such performance. The number of meters read per subtraction error was used as a standard of performance in the studies described above, but it would be satisfactory for a company to use some similar objective item such as over- and under-readings, if records of subtraction errors are not kept or if such subtractions are not made by meter readers.

The tests can be easily administered and scored by a member of the company's own staff using a manual which has been prepared by the American Gas Association Personnel Committee. The help of a person trained in validating tests will be needed in reviewing the data compiled in accordance with the steps outlined above to arrive at "critical scores" useful to the company.

The American Gas Association, through its Personnel Committee, will be pleased to make the tests available to companies which desire to make use of these materials. In doing so, the Association will request that the company agree to take the following steps:

(1) Administer the tests to new or currently employed meter readers for compiling data needed to set up "critical scores" applying to the company. (Time required to take the tests is 20 minutes.)

(2) Obtain the assistance of a psychologist to analyze the above data and to review subsequent experience with the use of the tests as aids in selection.

(3) Report the results of its use of these tests to the Personnel Committee of the Association, so that these results may be available for continuing research by the committee.

(4) Pay the printing and mailing costs of the number of copies supplied of the tests. (This includes the cost of purchasing that one of the tests which was developed and copyrighted by an outside agency.) One set must be purchased for each person to be tested. The price is 15 cents per set.

Upon request the Association will be pleased to supply information, through its Personnel Committee, as to nearby colleges where professional psychological assistance is available, in the event the participating company does not already have on *(Continued on page 46)*

Committee at work: (Seated, l. to r.) R. H. Philipps, Jr.; H. M. Henry; Samuel Green; J. H. Wolfe; T. L. Robey; Chairman E. G. Boyer; S. S. Tomkins (guest); H. B. Noyes; F. J. Pfluke. Standing—R. E. Kruger; A. B. Huyck (guest); E. L. Hall; N. K. Chaney; H. E. Ferguson; R. J. Horn; Karl Emmerling and P. T. Dashiell

Gas production research closeups

A PAR activity Shirt sleeves, sharpened pencils and an air of unified purpose greeted the MONTHLY reporter when he dropped in on the first meeting during the new year of the industry's Gas Production Research Committee in New York on November 6. Chairman E. G. Boyer and his lieutenants were already hard at work preparing the ground for new advances in the 12 major projects which this group sponsors under the Association's expanded PAR Plan.

In a smoke-filled room at Association headquarters 16 top gas company executives, aided by Fred J. Pfluke, ex-officio member of the committee and chairman of the Technical Advisory Group, showed an encouraging awareness of problems to be overcome during the year.

Here was an outstanding example of the cooperative planning and ingenuity which has enabled the gas industry to do what few other large industries have ever accomplished—produce effective results from an industrywide research program in the amazingly short time of three years. After an active fourth year, Chairman Boyer's group, using keen and far-sighted vision, promises an even more successful fifth year under PAR. Here are highlights of the meeting:

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Keep the program fluid, suggested Chairman Boyer. Last year nine meetings were held for a total of 13 days. The program this year will be equally strenuous. The committee plans, he said, to keep abreast of new developments, to evaluate new projects and new approaches to old projects. In that way it will keep the whole program fluid and moving.

Institute of Gas Technology projects were not taken up, but will be considered in detail by the Technical Advisory Committee in Chicago.

Chairman E. G. Boyer
Sponsor, Hydrocarbon Reforming and Catalysts

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Gas interchangeability report, just published, was announced and led to a lively discussion. The first of a series of reports on the subject, it clears up much confusion concerning interchangeability factors such as the A. G. A. "C" Factor, the Knoy Formula, and the several natural gas indices, and the usefulness of special interchangeability test burners, declared Edwin L. Hall. An attempt will be made, he added, to correlate this data, but it looks as though a general formula meeting all cases would be difficult to achieve.

Among the notes and doodles littering the table was a challenging agenda, crammed with projects of vital interest to gas company operations throughout

P. T. Dashiell
Sponsor, Hall High B.t.u. Oil Gas Process

the country. Hydrocarbon reforming, sulfur resistant catalysts, Hall high B.t.u. oil gas process, fluidization, coal gasification, all are studies of primary import.

Equally important work is proceeding on the enriching value of oils for carburetion, tar investigation, gas analysis, mixed gas, organic sulfur, the reaction between oxygen-steam and carbon, and water gas reactions.

Capable hands are building the future of an old and growing industry.

R. H. Philipps, Jr.
Sponsor, Fluidization and Gasification Processes

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Congratulations went to Edwin L. Hall and P. T. Dashiell (sponsors) and to John H. Wolfe and his associates at the Consolidated Gas Electric Light and Power Co. of Baltimore. The occasion—completion of highly successful tests at the Baltimore plant on the Hall high B.t.u. oil gas process. Saving in fuel and new installation costs are indicated. Two patent applications have been filed. Mr. Boyer told of working with an equipment manufacturer on a simplified apparatus which will be used with the Hall process.

J. H. Wolfe
Sponsor, Water Gas Reaction and Steam-Oxygen-Carbon Reactions

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New Processes—First of these is Socony-Vacuum Company's Thermofor Pyrolytic Cracking Process—hard to pronounce but having considerable possibilities for the gas industry—uses circulating pebbles for heat transfer. Socony-Vacuum's work has indicated interesting gas production and cost figures. While pushing its own work, committee members showed they are alert to outside developments, and projects like this one will be given intensive study.

H. E. Ferguson
Sponsor, Gas Oil Evaluations

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Another new process, the Elliott Company's low pressure process for production of oxygen, was discussed by Co-ordinator Robey. Similar type apparatus, he explained, could be used to liquefy natural gas for storage. Here is a possible answer to the vitally important problem of adequate storage, especially to meet peak loads. Both the Socony-Vacuum and Elliott processes will be discussed fully at the next meeting. Elliott will display a scale model oxygen plant.

Edwin L. Hall
Sponsor, Mixed Gas Research

•

Tar Investigation—Rapid progress in developing techniques for evaluating and classifying water gas and oil gas tars was announced by Dr. Chaney, A. G. A. research consultant. These techniques will permit the rapid and accurate determination of the quantities of light oils, resin-forming oils, heavy solvent and plasticising oils and pitch resins present, according to word from Pennsylvania State College where the work is in progress. Aim of the program is to enable tar producers to determine the value of their products.

R. E. Kruger
Sponsor, Organic Sulfur Research

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Birthday celebration—the meeting was an important occasion—the committee's fourth birthday. Of the four major research committees under the jurisdiction of the PAR and General Research Planning Committees, Gas Production Research is the youngest, though one of the most important.

More members? The PAR Committee has suggested that the Gas Production Research Group's membership be increased. Members of the latter group concurred unanimously that this move would strengthen gas production research. A special committee will prepare the action and pursue this objective.

F. J. Pfluke
Chairman, Technical Advisory Committee

Platform for sound dealer relations

B. H. Wittmann

BY B. H. WITTMANN

Manager, Domestic Sales Department The Peoples Gas Light & Coke Co., Chicago, Ill.

My company's policy on dealer relations is based on a guiding principle that dates back to 1936. Basically this policy is to encourage the widest possible distribution of gas burning appliances through the normal trading channels in the Chicago market.

From 1936 to 1941 our dealer department had developed some 1,300 dealer outlets for gas appliances. The company's retail organization and its apartment house section together represent only one of these 1,300 outlets.

Nobody feels more strongly than I do about the paramount need for utility appliance selling. Ours is a responsibility for the creation and expansion of the gas sales market, and our leadership in appliance selling is a necessary part of this market. Of equal importance, however, is the fact that as the market expands others enter into it, and what they sell and how they sell it will be a reflection of our own policies and our friendly or unfriendly relations with the others in that market.

It may be felt that the utility and dealer have little in common. If we examine the facts, it becomes obvious that in many respects our problems are mutual and identical.

The basic purpose of the utility may be set forth as follows: To sell gas for all of the people within our territory for every practical use within the economic reach of the customer and as a natural corollary to good customer relations; to do everything in our power to see that the customer buys good, satisfactory, economical equipment which is properly installed.

Obviously the dealer is not in the fuel business, and yet in respect to customer relations, appliance sales are more important to him than to us. The success or failure of his business depends primarily on the respect his customers have for the quality of his merchandise and his method of conducting his business. The responsible dealer should have no more desire to sell cheap, unsatisfactory equipment than we as a utility have to see it go on our line.

The prime concern of the utility is the kind of equipment the customer buys rather than where he buys it. As long as the applance and the installation supply the customer with satisfactory, economical service, and in so doing reflect credit to our company, our interests are equally well served whether the purchase is made from a dealer, contractor or ourselves.

The fundamental principles underlying the retail sales activity of The Peoples Gas Light & Coke Co. are as follows:

(1) It is not the desire or intention of the company to sell gadgets or miscellaneous over-the-counter items that logically belong to the retail dealer.

(2) To sell or display only first-line appliances of high quality and efficiency. Appliances selected for sale by the company, in our opinion, represent the best equipment available, bear the A.G.A. seal of approval, and in addition have been tested and approved in the company laboratory.

(3) To require that the installation of appliances by contractors be made in accordance with the best standards of engineering practice. Installation standards for all classes of equipment are constantly being revised in the light of improved techniques, and information in respect to these standards is available through our dealer section.

(4) To establish sales prices in accordance with sound trade practice. Experience shows that in order to operate an appliance business satisfactorily the retail sales prices must include an adequate profit margin. It is the general policy of the company to include such margins in establishing retail prices.

(5) To maintain established retail prices. It is the policy of the company to maintain, and religiously so, retail prices subject only to such trade-in-allowances that may be common trade practice. The only retail purchasers eligible for a discount are our own employees who desire to buy gas equipment for their own personal use. Our company, in common with all dealers, continually receive requests from trade associates and others who feel that they are entitled to a special price. It is not the intention of the company to comply with such requests.

Dealer sales encouraged

(6) Not to compete with dealers for appliance sales. Our established program of dealer cooperation requires that we aid and assist dealers rather than try to take business away from them. In any instance where we have knowledge that a customer is intending to do business with a dealer, we will encourage the sale rather than try to write it ourselves. The only exceptions to this policy are those rare cases where it is evident that the customer is being poorly advised—where neither the customer nor the company will be happy with the equipment they propose to install.

The five years prior to the war would seem to indicate that the company's policy in respect to gas appliance sales and the effect of this policy on dealer sales has been more than reasonably successful. Those five years witnessed a steadily ex- *(continuing on page 28)*

Frank H. Lerch, Jr. breaking ground for new Institute of Gas Technology building. Others in foreground are Frank C. Smith, Houston; H. T. Heald, I.G.T. president; E. S. Pettyjohn, director

I. G. T. expansion underway

New building to spur educational and gas research program

A LONG step forward in the building program of the Institute of Gas Technology, Chicago, Ill., was taken on October 28 when Frank H. Lerch, Jr., chairman of the board of trustees, turned the first spadeful of earth for the Institute's new building.

Consisting of two stories with a full basement, the structure will house I. G. T.'s precision laboratories, some of its research laboratories, its library, information service, classrooms, and administrative and business offices. It will be 180 feet long by 75 feet wide and will conform in exterior designs with the new buildings which are being erected by Illinois Institute of Technology on the Technology Center campus. Arrangements have been completed with Illinois Institute for use of the land and it is hoped that construction can be started early next spring.

Cost of the building is estimated at approximately $400,000. However, research equipment, educational facilities and the library's college on gas technology will bring the total investment to well over $750,000.

Funds for the new building are being contributed by gas companies all over the country. The American Gas Association's Committee on Promotion, Advertising and Research is lending its fund-raising facilities for the solicitation, and the gas companies have been asked to contribute annually over a period of three years beginning in 1947. More than 140 companies have already given $137,500 as a result of the 1947 solicitation and it is expected that similar sums will be made available during 1948 and 1949.

The ground-breaking ceremony witnessed by associate member company representatives, the staff and fellows of I. G. T., was one feature event of the Institute's seventh annual meeting. The occasion was also highlighted by an inspiring address delivered by Frank C. Smith, chairman of the industry committee which organized the Institute, and first chairman of the board of trustees.

He traced briefly the events which led to the founding of I. G. T., stated succinctly the purposes and functions

Frank C. Smith, president, Houston Natural Gas Corp., addressing the I.G.T. annual meeting

for which it was established, and traced its accomplishments.

Mr. Smith pointed out the Institute's aims as: training men specifically for the gas industry; prosecuting research for the industry, both basic and applied; collecting and disseminating scientific information on behalf of the industry, and correlating and coordinating research within the gas industry.

These purposes have remained unaltered by the passage of time, he added, and have been realized in substantial measure despite the fact that four and one half of I. G. T.'s seven years of service were subject to rigorous wartime restrictions.

Speaking of the Institute's research program, Mr. Smith reported that 14 basic research projects, financed from its own meager funds, have been undertaken. Six of these are still in process of study.

I.G.T. annual meeting: (left to right) Raymond J. Spaeth, secretary-treasurer; H. T. Heald, president; Frank C. Smith, Wilfred Sykes, Louis Ruthenburg, L. L. Tonkin, R. E. Kruger, John E. Heyke, Jr., George Smith, A. G. A.; Frank H. Adams, George Creelman, E. H. Eacker, C. J. Shuttleworth, H. B. Noyes, George Mitchell, C. B. Dushane, Frank H. Lerch, Jr., N. Henry Gellert, D. K. Taylor, M. L. Sperry, W. R. Wright, J. D. Parent, educational director; J. D. Cunningham, E. S. Pettyjohn, director

"As to (privately) sponsored research," he declared that "the Institute has undertaken or completed 67 projects for members and related interests, the nature of all of which is confidential. . . . The American Gas Association has entrusted to the Institute of Gas Technology 25 projects, some of a fundamental nature and some in applied research. . . . The cost of these 25 projects has amounted to $684,000, with an additional $261,000 on seven projects now committed. . . . The Institute now has in hand sponsored research on eight projects aggregating $296,000.

"Here was, and is, ready to serve, qualified manpower from the top drawer of science, experience, and reasonably adequate facilities. . . . The Institute of Gas Technology is now firmly founded and recognized. . . . (It) now faces the future with confidence, aspiring only to serve the industry to its fullest potential and welcoming every opportunity to fulfill its dual function of education and research in behalf of the gas industry of our country."

Mr. Smith then quoted from a recent statement by E. P. Noppel, chairman, A. G. A. General Research Planning Committee, as follows:

"The Gas Production Research Committee has assigned to the Institute seven of its 11 current projects . . . (and) about one-half of the new authorization for all research for the fifth year of the PAR (Promotion, Advertising and Research) Program.

"There are two very important advantages which accrue to the industry by having the work done in an industry-supported institution: (1) continuity, and (2) proper-scale experimentation.

"By the vision of its founders and the hard work of its management, the Institute has gradually attained its present status as an invaluable tool of the research program of the American Gas Association."

The annual meeting of the members was preceded by the twenty-first meeting of the executive committee of the board of trustees presided over by Mr. Lerch.

President Henry T. Heald presided at the seventh annual meeting of the members. Representatives of 21 associate member companies were present in person and 13 by proxy. The first action was approval of proposed amendments to the by-laws increasing the total number of trustees from 22 to 28 and increasing the representation of Illinois Institute of Technology trustees on the board from four to five.

The following trustees of I. G. T. were elected at the annual meeting: Henry Fink, president, Michigan Consolidated Gas Co.; Harry K. Wrench, president, Minneapolis Gas Co.; F. M. Banks, vice-president, Southern California Gas Co.; Henry R. Cook, Jr., vice-president, Consolidated Gas Electric Light and Power Co. of Baltimore; James D. Cunningham, president, Republic Flow Meters Co.; E. H. Eacker, president, Boston Consolidated Gas Co.; R. H. Hargrove, president, Texas Eastern Transmission Corp., Shreveport, La.; James F. Oates, chairman of the board, The Peoples Gas Light & Coke Co., Chicago; Marcy L. Sperry, president, Washington Gas Light Co., Washington, D. C.; Paul R. Taylor, vice-president, Consolidated Electric & Gas Co., New York, and George S. Young, vice-president, Columbia Engineering Corp., New York.

Economics

● Economists have yet to learn that how many cents a dollar is worth depends on how much sense the person has who spends it.

—Construction Digest

Pipelines saga

● Did you know that 45 percent of all power and heat requirements of the United States are transported through pipelines? Did you know that if subway carriers of oil, gas and petroleum products within the boundaries of this nation were strung end to end, they would circle the globe no less than 12 times? Did you know that the United States has at least three times as many miles of power-operated pipelines as all the rest of the world together? Did you know that early oil drillers "loathed and feared" finding natural gas as they loathed and feared the plague? Did you know that the first span of gas pipe is supposed to have been made of gun barrels glued end to end?

You didn't? Well, neither did we until we got to digging into a new book published by Longmans, Green & Co., New York, called "Oil Across the World—The American Saga of Pipelines."

—Southern Counties Gas News

Higher labor and materials costs demand new depreciation and reserve policies

The Impact of present costs

A. B. Hossack

BY A. B. HOSSACK

President, American Appraisal Co., New York, N. Y.

The impact of present costs on depreciation and reserves is a problem of much concern and interest to those engaged in the valuation profession, and I think deserves more aggressive and constructive consideration than the problem has had to date from accountants and management.

I interpret present costs to mean the number of present dollars that are required to replace facilities used to produce products or services based upon present material and labor costs. The higher costs for labor recognize both the increased labor rates, decreased efficiency and the various fringe benefit payments to labor that now constitute an increasing cost item for all business.

Accordingly, we are not discussing the control of original cost or the adequacy of depreciation charges or reserves on such original costs either for tax, for accounting, commission regulation or for rate-making purposes. I am not an engineer who has specialized in utility matters and do not propose to discuss the merits, scope or limitations that some commissions and engineers have placed upon depreciation based upon observed depreciation.

I will say that I have never subscribed to many of the principles that too often utility companies adopted in the past as to depreciation provisions. Legislation regulation and the fact that property, even though maintained, has to be replaced due to gradual deterioration that may not be observed during the early life, or due to changes in processes, service requirements or improvement in facilities, have brought a broader perspective to this management problem by your industry.

I am quite aware of the fact that original cost records must be maintained, and I am not advocating that the accounting records be adjusted to reflect any appreciation over cost that may be used as a basis for computing replacement reserves or additional depreciation charges to be reflected in costs of operation.

There may be perfectly good reasons for adjustments of property costs to current values in certain cases if accompanied by adequate disclosure, but at least, it is not the vogue at present to reflect present values of plant facilities on most financial accounting records. I am not so sure however, that there may not be a reversion in future years, when it may be accepted as good accounting practice to reflect something more nearly actual value on the accounts, providing there is a proper disclosure. Book records today, if on original cost, are rarely any real guide or indication as to present value.

While in no way advocating the recording of value appreciation on the accounts, and while I am an engineer and not an accountant, there are one or two observations that I would like to make about the property records and plant accounts. In my opinion, it is good accounting to accord some weight to factual data in controlling these accounts. I believe that the existence and use of plant assets is a fact, and that the accounts should reflect all such assets, on the books or subsidiary records at either cost or value. In other words, both the property and the accounts are elements in good property accounting. Too often the policy adopted has been that so long as the costs are entered on the books, and some average rate of depreciation is applied, the accounts must be correct.

There are also certain facts that can be applied to more fairly estimate the depreciation that accrues on cost if a reasonable property inventory is maintained and at least the major items of cost occasionally reviewed as to condition and future years of utility.

You can probably agree, without one dissenting voice, that the cost of facilities used in producing products or rendering service has radically increased in recent years. What effect does this have, and what should management's policy be in meeting this

Presented before thirtieth annual A.G.A. Convention in Atlantic City, N. J., October 4-8, 1948.

change that has occurred, is really my subject.

The greatest number of the present approaches to this problem today, seem to be predicated on the assumption that we are under a temporary excess-price period and that present levels will revert to pre-war levels in the not too distant future. Some are providing reserves for so-called excess costs or reserves for replacement with no plan for the ultimate using of such reserves.

Personally, I think it is wishful thinking to anticipate we are going to turn the corner and revert to former wage and price levels. Planning on such assumptions is not a constructive approach to the very real problem that is facing business today. It had been my hope that we might hold to the moderate increases that occurred during the last war, but when I returned from a trip to Europe in late 1945 and heard the philosophy promulgated that labor could be increased 25 percent without increasing prices, and increases rather universally granted, I quickly revised my expectations. When or how we will stop the "price-wage dog" from chasing his tail is hard to predict, but we are all losers irrespective of temporary advantages that may be gained by individual groups.

It is my opinion that if and when there is a stabilization, price levels are going to be not less than 50 percent in excess of those prevailing during the period of war price and wage controls. To accomplish even this reduction from present average levels, we must have a return on the part of labor to a willingness to do a fair day's work for a fair day's pay, and management must come through with substantial technological improvements to reduce the present costs of production.

I am not by nature a pessimist, but even American ingenuity cannot overcome the increases in costs resulting from the prevailing tendency of more pay and less work. Certainly this policy cannot and will not reduce prices. Facility costs are largely the result of labor costs throughout the various processes from raw material to ultimate end product. Accordingly, it is my opinion that we must expect any stabilization of costs for the tools of production to be at a level much higher than pre-war prices on even a long range prospective. Even after this change that has occurred in economic conditions, so that more present dollars are needed to replace the facilities used in producing products or rendering service, some still ask why any additional facts are necessary in the accounting for the property for informed balance sheet or income statements.

My position is this. With every unit of production a portion of the depreciable plant is used up either as a result of wear or the element of time. If a business is going to continue it must provide the funds to assure the replacement of the tools of production either from earnings or by new capital. Recovery of cost will no longer provide sufficient capital to make possible the replacements. It is my opinion that current production costs should include a charge sufficient each year to provide in present dollars for the plant currently used up in service.

You will note that this policy would primarily affect the income statements, and I am frankly much more concerned with the income statement than the balance sheet where some logic may dictate that consistency in accounting for original cost is desirable. There are several sound economic reasons that indicate most business would benefit by recognizing this change in conditions and reflecting present real costs in the income statements:

(1) A great majority of our enterprise has now developed to a point where there is a substantial separation between those who own the business (stockholders) and those who manage.

It is not good stewardship to use up the stockholders' assets and then have to come to them and say that additional capital must be raised, with the result their capital must be diluted or subordinated in order to make up the differences in costs of replacement required to keep the production facilities intact. It may also be difficult or impractical then to raise the additional capital. You are not asking for added capital to expand the business but merely to keep it going with production facilities intact.

Management's responsibility

Management cannot force or anticipate all economic changes but there is little excuse to fail to recognize a continuing change in economic conditions that results in decreasing the amount a dollar will purchase.

(2) Any company that attempts to know costs or tries to base selling prices on costs and fails to recognize the cost of that part of the facilities currently consumed in production is in fact giving away part of its assets without reimbursement. If management has the facts and knowingly does so, well and good. There may be good valid reasons why such a policy is temporarily expedient, but do not fail to recognize the trend and know that unless changes occur you must ultimately meet such increases in cost in selling your products.

Gas companies win annual report "Oscars"

James F. Oates, Jr., board chairman, The Peoples Gas Light and Coke Co., Chicago, and Stuart M. Crocker, president, The Columbia Gas System, holding copies of 1947 annual reports which received "Best of Industry" awards in New York, October 21. Both companies won bronze trophies (see above) in the national competition sponsored by "Financial World"

I think good cost accounting to include the current money cost of the original investment in the operating charges from time to time as it wastes away.

(3) There has been, in my opinion, too much adverse publicity that the profits from business are unreasonable. Personally I have a lot of faith in management and generally I think the aim is to make a fair allocation between the customer, the employees and the stockholders, all of whom are, or should be interested in the continuity of the enterprise. I think a better factual determination of the depreciation and reserves required to replace plant facilities will win the acceptance of the additional charges in the operating statements. Arbitrary appropriations, whether from earnings or surplus, too often cast doubt upon the integrity of the management or their financial accounting.

Profits distorted

That this problem is of importance and is being given serious attention is indicated by a recent article published by John Haskell, vice-president of the New York Stock Exchange. It stated—"by and large, it appears that the total profits of all American companies for 1947 would be just about half of the amount reported on a monetary dollar basis, if correction were made to eliminate the distortions caused by increased price levels in inventory and depreciation figures."

(4) For you in the utility business, I think this problem has a special importance. It is my general understanding that due to inadequate depreciation provisions accrued for many years, the present requirements, many of them mandatory, to reflect more adequate reserves computed on original cost, has entailed some strain on the financial statements and also the replacements required not adequately reserved even on original cost, have presented some real problems in raising additional capital.

I believe by a constructive and factual approach to this problem you can do much to mold acceptance by the public you serve and by the regulatory bodies, of the need to recognize as a cost of service, depreciation on present replacement *(Continued on page 47)*

Industrial relations round-table

Prepared by A. G. A. Personnel Committee

● **Reemployment rights of inductees** are protected under the Selective Service Act for three years. In consequence, an inductee who voluntarily extends his period of service for a maximum of 15 months beyond the regular 21 months' period of his original induction, will not lose his reemployment rights provided there is no break in his service continuity. This is in accordance with a statement issued by the Director of the Bureau of Veterans' Reemployment Rights. Reemployment beyond the three-year period will constitute a waiver of reemployment rights.

● **A battery of employment tests** designed specifically for use in the selection of meter readers is now made available to the industry under the auspices of the Association's Personnel Committee. An article appears in this issue of the MONTHLY describing the work that has been done in validating these tests, the plan under which they are available, the procedures in administering the tests, and the results that may be expected from their use. Gas company executives are urged to refer to that article. Orders for the tests (which should be addressed to Association headquarters, attention of Kurwin R. Boyes, Secretary) will be filled promptly.

● **An employer can replace any workers** who go out on strike for wage increases or for any economic objectives so long as unfair labor practices by the employer are not involved in the strike, according to a ruling by the National Labor Relations Board. Workers who are thus replaced permanently cannot vote in an election.

● **The National Labor Relations Board** also ruled on the "right to go to and from work without restraint or coercion while a strike is in progress." The Board ruled that the following are unfair labor practices:

(a) Mass picketing which blocks by force ingress of employees' automobiles to a struck plant or its parking lots.

(b) Pickets preventing an employee from going to work through such methods as standing in the way of employees' autos.

(c) Threats of physical violence such as threatening to pull employees out of a car seeking to enter the plant or the following of an employee by several pickets and threatening him with a beating.

(d) Trailing of strikebreakers by strikers, thus clearly conveying the unspoken threat that the strikebreakers might be subjected to bodily harm. (At the same time the Board found that the rights of peaceful picketing were not abused by name calling, vilification and verbal abuse.)

● **The National Industrial Conference Board** has issued one of its Studies in Personnel Policy covering "Company Medical and Health Programs." This is a comprehensive report on the subject.

● **Merit raises to employees** in a collective bargaining unit have definitely been ruled within the field of collective bargaining. They may no longer be considered in the area of "management prerogatives" since the Supreme Court has refused to review an N.L.R.B. ruling in the matter.

● **Office employee security benefits** is the subject of Survey Summary No. 6 prepared by the National Office Management Association. It reports the practices and policies of 1,507 companies in the United States and Canada. Twenty-one types of benefits are grouped into three major types—leave, insurance, and monetary. Copies of the survey may be purchased from the N.O.M.A. National Office, 12 East Chelton Avenue, Philadelphia 44, Pa.

● **"How to Make a Wage Survey"** by *David W. Belcher and Herbert G. Heneman, Jr.* (Reviewed by W. E. Ritchart, personnel analyst, Equitable Gas Co., Pittsburgh, Pennsylvania.)

The Industrial Relations Center of the University of Minnesota is undertaking a study of various industrial relations techniques and procedures, and the results of these studies are being published as a series of technical reports. The first report, "Accounting Methods for Local Unions," was published in May of this year. The second report, which has just recently been released, deals with the very timely subject of wage surveys.

To assist those who are responsible for securing accurate wage data, two members of the University's Industrial Relations Center Staff have prepared Technical Report No. 2, entitled "How to Make a Wage Survey."

The authors are David W. Belcher, instructor in economics at the University of Minnesota, and Herbert G. Heneman, Jr., research associate and assistant director of the Industrial Relations Center.

The report is prepared as a manual of methods to be used in conducting wage

(Continued on page 48)

Chairman Reynolds

Vice-Chairman Roper

Many milestones of achievement loom as accountants plot ambitious annual program

Accounting Program

Casting aside tradition, the accounting committees of the American Gas Association held their initial organization meetings jointly with the corresponding committees of the Edison Electric Institute on Thursday and Friday, October 7 and 8, at the Haddon Hall Hotel in Atlantic City. A practical program was unfolded that promises to provide accountants in the industry with much worthwhile material.

Chairman L. E. Reynolds, The Connecticut Light and Power Co., Hartford, Conn., has apparently infected the group with his enthusiasm and if he can also find a way to make his source of dynamic energy available to them the new year should surpass all others in accomplishments.

Finished products of the various project committees will be presented at the National Conference of the Electric and Gas Utility Accountants at Detroit in April 1949 or at the thirty-first annual convention of the American Gas Association in Chicago in October 1949.

Important assistance will be provided throughout the year by Vice-Chairman John H. W. Roper, Washington Gas Light Co., Washington, D. C., who has been active in A.G.A. work since 1940. Mr. Roper was formerly chairman of the Customer Accounting Committee and coordinator, Customer Accounting Activities Group. As current chairman of the Section's Editorial Committee he is providing the A.G.A. MONTHLY and other gas industry organs with the latest information on accounting developments. As chairman, Advisory Planning Committee, which replaces and streamlines the former Advisory Planning and Program Committees, he will help select and establish policies for the 1950 accounting meetings.

The General Accounting Activities Group supervised by Coordinator Austin T. Gardner, Delaware Power and Light Co., Wilmington, Del., organized a comprehensive program of considerable magnitude.

GENERAL ACCOUNTING ACTIVITIES GROUP: (L. to r.) A. T. Gardner, coordinator; F. J. Labanca, chairman, General Accounting Committee; L. R. Michelsen, chairman, Materials and Supplies Committee; K. R. Watson, chairman, Property Records Committee; B. S. Rodey, Jr., chairman, Taxation Accounting Committee

The General Accounting Committee Chairman, F. J. Labanca, New Orleans Public Service, Inc., New Orleans, Louisiana, with 30 years of utility experience behind him announced that the following project committees had been appointed: Functional or Responsibility Accounting—the men behind this project plan to continue the research of functional or responsibility accounting undertaken last year, and as far as possible, the results of the research work shall contain concrete examples actually being followed by various utility companies which have had sufficient experience with the matter to report on its effectiveness and usefulness. Other project committees are: Clarification of Reports to Stockholders, Employees and the General Public; Internal Auditing; Machine Applications for General Accounting—(this group will continue the study of and the reporting on new general accounting machine applications); Payroll Procedures, Methods of Distribution, etc.; Protection and Preservation of Records; Budgeting and Forecasting; and Capitalizing Various Overhead Costs.

K. R. Watson, Philadelphia Electric Co., Philadelphia, Pa., the chairman of the Property Records Committee who has been property recording for approximately 18 years, reports that his committee elected to undertake the study of the following: Methods Used in Collecting Costs and Distributing Same to Property Units of the Mass Accounts; Do Your Priced Gas Inventory Records for Inside Plant Equipment Meet Inter-

gets rolling

nal Requirements; Construction Budget Control During Periods of Rising Costs and Depreciation and its Relationship to Plant Accounting and Property Records. The man handling the last project mentioned will work with a comparable subcommittee of the General Accounting Committee as it is a subject of interest to both groups.

B. S. Rodey, Jr., Consolidated Edison Co. of New York, Inc., chairman, Taxation Accounting Committee, revealed that although a more definite program would be established in the very near future, his committee's tentative plans include the study of Depreciation of Land and Flowage Rights, Subsidized Extensions of Service Facilities, and continued research in the major tax problems confronting the industry. The eagerly-awaited reference book on utility accounting which Mr. Rodey has been writing, soon will be published.

L. R. Michelsen, The Peoples Gas Light and Coke Co., Chicago, chairman, Materials and Supplies Committee, with more than 20 years' stores experience backed up with ten years' accounting experience, announced that his committee plans to continue to study and develop standardization of packaging along with the following projects: Systems of Codification of Materials and Supplies, Delivery of Materials and Supplies between Storerooms and Jobs, Floating or Repeating Purchase Orders or Requisitions and Material Reports.

The Accounting Employee Relations Committee which is now a subcommittee of the Managing Committee, will continue to operate under the guidance of both the General Accounting Activities and the Customer Accounting Activities Groups. The chairman, J. F. Farley, New York State Electric and Gas Corp., Ithaca, New York, and the vice-chairman, W. A. Kelly, Consolidated Gas Electric Light and Power Co., of Baltimore, have announced that the committee will work as usual in close cooperation with the A.G.A. Personnel Committee.

They have decided to concentrate on a Survey of Office Working Conditions or The Training of Future Accounting Executives. The personnel of this committee prefer to focus all their attention on one of these projects rather than undertake them both.

The Customer Activities Group guided by Coordinator Paul E. Ewers, Michigan Consolidated Gas Co., Detroit, with 23 years of utility experience and approximately five years of American Gas Association experience, reviewed a multitude of subjects which the newly-selected members believed worthy of industry study.

The Customer Accounting Committee, A. G. Burnett, The New York Power and Light Corp., Albany, N. Y., chairman, with 20 years' utility experience and five or more years of American Gas Association experience, announces that, generally, interest among the Customer Accounting Committee members centered on rising costs. This committee embarked upon plans for studies in the Customer Accounting field covering Indispensable Practices, Effective Organizational Structures, Work Simplification, Cost and Production Comparisons, and Service Meter Order Records and Routines. Cost-conscious customer accountants can be certain that these studies will furnish many long-needed bouys to mark the channel to effective cost control.

ACCOUNTING EMPLOYEE RELATIONS COMMITTEE: J. F. Farley (left), 1948-49 chairman, and W. A. Kelly, vice-chairman of the committee

Other projects of prime interest to the industry which are almost certain to pop into view in this new Association year, include A Review of the Features and Accomplishments of the Most Comprehensive Development of Punched Card Customer Accounting Systems and Mark Sensed Meter Reading, the Scheduling and Preparation of Meter Change Orders For Periodic Gas Meter Tests, Systems of Permanent Customer Account Numbers and Bottled Gas Accounting.

According to the chairman of the Customer Collections Committee, C. L. Havener, Consolidated Edison Co., of New York, Inc., who has 26 years of utility experience to call upon, comparison is the key note being accented by the members of his group. To translate this work into action the committee plans to bring to the industry periodic statistics which will enable gas men to compare their accomplishments, credit and collection-wise, with other companies by area, size, and type of company. Examination of similar and contrasting features of both basic collection practices and the type of letters used to collect final accounts will round out their comparison parade.

What types of accounts make up uncollectibles? This is a question frequently asked but seldom answered by many of the industry's collection men. These and related answers, many vitally interesting, some startling, will constitute the pay-dirt for which the committee members will dig in the months ahead.

"Customer Relations is Everyone's

CUSTOMER ACCOUNTING ACTIVITIES GROUP: (Left to right) Paul E. Ewers, coordinator, Customer Accounting Activities; Arthur G. Burnett, chairman, Customer Accounting Committee; C. L. Havener, chairman, Customer Collections Committee, and B. Morgan Scherer, chairman, Customer Relations Committee

Business" is the theme around which B. M. Scherer, Citizens Gas and Coke Utility, Indianapolis, Ind., chairman of the Customer Relations Committee, has rallied his group. Mr. Scherer announced that his committee will undertake a symposium of the little extras member companies perform to lift the level of relations with customers. This is just one of the rather novel ideas planned for presentation to the industry by this committee. Training programs for employees are today rather commonplace, but what does the industry offer within these programs to train employees who will meet the public? The next step in this highly important and frequently forgotten field will form the goal toward which the development of this project is pointed.

This group believes that—Does John Averageman understand our rates? is a query about which many in the industry are becoming increasingly concerned. An objective review of customer thinking toward various types of the industry's rate structures will be undertaken to promote constructive suggestions for the benefit of all companies. Customer Relations With a Collection Slant will complete the remaining field of action for this committee in a "look-see" at the effect of collection notices and telephone collection activity on customer attitude.

It is a prolific prospectus and we are not counting our chickens before they are hatched. However, if enthusiasm and determination will produce a successful program the Les Reynolds Gang is in. Truly the Accounting Section is rolling!

"Uniform systems of accounts" reprinted

REPRINTS of the "Uniform Systems of Accounts for Electric, Gas and Water Utilities" are being prepared by the State Law Reporting Company, and will be available to American Gas Association members at two dollars a copy. To non-members the price is $3.50. The same firm is also making a mimeographed reproduction of the "List of Retirement Units for Electric, Gas and Water Utilities." This publication sells for $1.50 a copy to all purchasers. Orders should be addressed to the State Law Reporting Company, 30 Vesey Street, New York 7, N. Y.

Letter attacks annual report jargon

Annual report writers may well ponder some of the points raised in this pungent letter.—Editor.

WITH the aid of a glass, because these old eyes ain't what they used to be, I read that thing on page 9 of the A.G.A. MONTHLY for October 1948 where it says, "Discussion and planning of Annual Report facts and figures in terms of their by-product use through other adaptable channels of communication."

The fella who wrote that must be lately off the Government payroll,—one of those departments that has whole staffs of experts in obfuscation.

This is the attitude of mind that results in making the compilation of a simple, or what ought to be a simple, straightforward statement of where we stand, what we took in, and what we done wid it,—also what we expect and what we think we're gonna do about it,—an arduous and exhausting undertaking.

The principal value of such an exertion is to bolster the ego of those who have brought it into existence. The only difference between the production of so elaborate a report and a multiple obstetric achievement is that it winds up in the desk drawers of employees, in the wastebaskets of widows in Chicago and Boston, and the libraries of the Wharton School and N. Y. U., which is the wrong way around.

I have watched this tendency develop over the last ten or 15 of the almost 37 years I have devoted to public utilities. It takes more people to do almost anything—at least in the clerical function—than ever before. We have more statistics, more details in our accounts, more errors,—in fact, more everything, and we make *less* of a return than ever. Formerly, we closed our manually kept books as of the very last day of any month. We didn't have to cut off on the 25th or 27th. We were balanced in six to nine days on the average, and within 72 hours had sheaves of statements on their way to the officers and directors. Now, with tens of thousands of dollars of annual machine rentals, an army of apathetic help, a blizzard of cards and acres of fanfold forms, all incidental to an almost incomprehensibly complex mechanism, we get the statements any time after the 15th of any month and post the ledgers, often to the stultification of the statements, any time after the 20th. Yeabo! Also, whee!

The same sort of thing is happening to the annual report.

Several years ago, one of the men to whom I am answerable invited me to contribute my ideas on how an annual report should read. The thought was to carry the company's hard luck story most effectively to the employees. . . . Well, how do you get people to read, or to listen, or to stop and watch? You put on a show, don't you? You amuse them, don't you? Give them a good time. Make them laugh. If you do it right, you will have them clamoring for *monthly* reports! They will even offer you paid subscriptions! It's simple, like that! If you don't, the very people who *should* read your plaint pass it up and exclaim, "Aw, bushwah!"

So the serious thinkers ditched it. You see, that kind of thing gives nobody a chance to parade his college education and strut his cerebral grandeur. So—

The reports still wind up in the desk drawers of employees, in the wastebaskets of widows in Chicago and Boston, and the libraries of the Wharton School and N. Y. U. And for that they chop down those beautiful Canadian forests!

Not only for the Hooper rating, but because some of the idiocies perpetrated by the big brass of some utilities deserve it, their annual reports should be written by Fred Allen—or Eddie Gardner. Believe me.

". . . in terms of their by-product use through other adaptable channels of communication."

Ahrrr! Sincerely,

ALBERT J. FRANCK,
Queens Borough Gas & Electric Company

Dealer relations platform

(Continued from page 20)

panding market for gas appliances. Total retail dollar volume increased from $4,800,000 to $14,500,000, with the ratio of company sales to dealer sales decreasing from 31 percent to 18 percent in the same period.

Speaking of utility and dealer relationship generally, in new markets, sales promotion and appliance selling is primarily the function, obligation and burden of the utility. The utility derives its income from fuel sales. The retail merchant derives his from the profit he makes from over-the-counter sales. With few exceptions, the retail merchant has neither the capital, desire nor ability to promote new markets for the sale of fuel.

But, once a product has been promoted or developed to where it becomes a dealer operation, it is not economically sound for a utility to pour money into an installation subsidy. I personally believe that it is shortsighted on the part of the dealer to accept such a program, because common intelligence tells that particular dealer that when the utility has received the acceptance that is its goal, it will immediately, and without counselling with the dealer, discontinue the subsidy. In other words, the retail dealer should expect that the market be promoted and created on a sounder basis than penalizing all customers for the benefit of a few.

Section primes vital national gas markets

Workmen set up Selas Corporation display as part of A. G. A. exhibit at National Metal Show

Climaxing its busiest period of the year, the Section told its story recently to thousands of members, visitors and publication editors on two of the largest and most important industrial and commercial fields in the country.

During the week of October 25-29, the country's largest industrial exhibition, the Metal Show in Philadelphia, was the scene of the American Gas Association's record Combined Industrial Gas Exhibit. The traditional Industrial Gas Breakfast was held at the Ritz-Carlton Hotel on October 27, during Metal Show week. Another outstanding A. G. A. Exhibit was presented at the Hotel Show in Grand Central Palace, New York, the week of November 8, while the first Commercial Gas Breakfast was initiated at the Hotel Roosevelt, New York, on November 9.

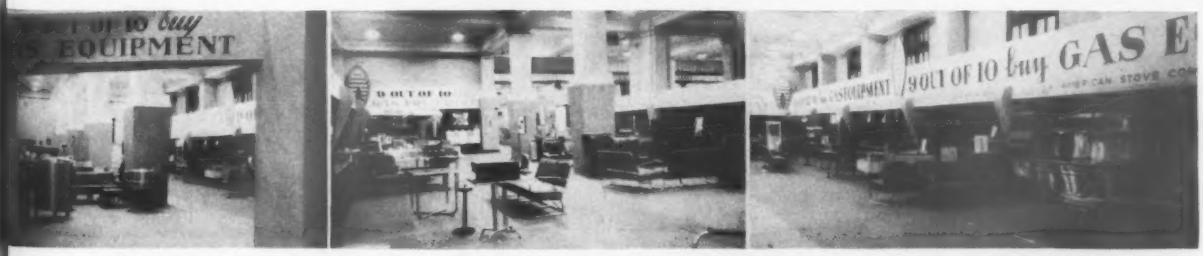
The Metal Show, the country's largest industrial exposition was visited by 50,000 people. The 12 exhibitors in the A. G. A. section voted unanimously that this was the most successful show of its kind they had ever participated in.

Half of the exhibitors had "live" displays. The Selas Corporation of America, Philadelphia, demonstrated their Gradiation unit for high speed heating as a scale model of similar equipment being used in several plants. They also displayed many types of radiant burners together with a pre-mixing machine.

Charles A. Hones, Inc., Baldwin, N. Y.; had a semi-muffle furnace for temperatures to 2,000° F, with a full muffle furnace for temperatures to 2,400° F, both operating on atmospheric burners under automatic temperature control.

Carbomatic Corp., Astoria, New York, had a continuous furnace demonstrating infra-red heating under full automatic temperature control.

The display of Gas Appliance Service,



Three views of A. G. A. Combined Commercial Cooking Exhibit at record-breaking Hotel Exposition held in Grand Central Palace, New York, November 8-12

Inc., Chicago, demonstrated automatic brazing and attracted a continuous group of onlookers. The firm also had a midget air heater delivering up to 125,000 cubic feet of air per minute. Another part of the booth demonstrated a small forge furnace and special burners for high speed localized heating.

American Gas Furnace Co., Elizabeth, N. J., showed a large variety of industrial burners producing highly specialized flame patterns, as well as a large continuous atmosphere furnace.

The C. M. Kemp Manufacturing Co., Baltimore, Md., showed their gas carburizer which supplied pre-mixed gas to a variety of industrial burners.

Other exhibitors in the combined exhibit who showed essential parts of their gas equipment, sponsored a promotional display or both were:

Despatch Oven Co., Minneapolis, Minn.; Eclipse Fuel Engineering Corp., Rockford, Ill.; Gehnrich & Gehnrich, Inc., Woodside, L. I.; The Lithium Co., Newark, N. J.; and Surface Combustion Corp., Toledo, Ohio.

A. G. A. pictures shown

One section of the 8,000-square foot area was taken up by the A.G.A. lounge around which was displayed a series of exhibition prints of industrial gas applications, thus providing an attractive meeting place for gas men at the Metal Show.

Through the cooperation of The Philadelphia Gas Works Co., its industrial and service representatives, 600 percent more gas was secured than is ordinarily available at Convention Hall. Four other exhibitors outside of the A.G.A. Combined Industrial Gas Exhibit were supplied fuel to operate their displays.

The thirty-third Annual Hotel Exposition closed its doors on November 12 after all records had been broken for attendance and for the number of exhibitors. Four floors of Grand Central Palace were crowded with the displays of 532 exhibitors. On the main floor was the largest single exhibit of the show—the A.G.A. Combined Commercial Cooking Exhibit, where 15 manufacturers of heavy duty gas cooking equipment cooperated in one of their most successful shows. A space of more than 200 feet on both sides of the A.G.A. display contained almost one hundred percent stainless steel equipment.

Eleventh Industrial Gas Breakfast in Philadelphia, October 27, was attended by gas men from 22 cities in ten states and the District of Columbia, as well as gas equipment manufacturers and editors of metal publications.

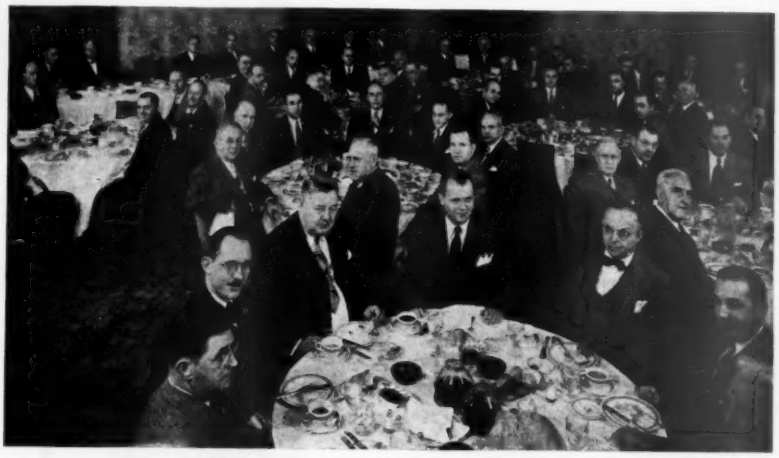
Carl Wierum, The Brooklyn Union Gas Co., chairman of the A.G.A. Metals Committee, presided and introduced M. A. Grossman, director of research, Carnegie-Illinois Steel Corporation. Mr. Grossman, a past-president of the American Society for Metals, greeted the breakfast guests on behalf of that organization.

As speaker of the day, Oliver Johnson, director of research, *The Iron Age*, discussed the service which his publication is rendering to suppliers of equipment in the metals field. He cited surveys which his publication has made throughout the industry and discussed those of particular interest to manufacturers and gas men.

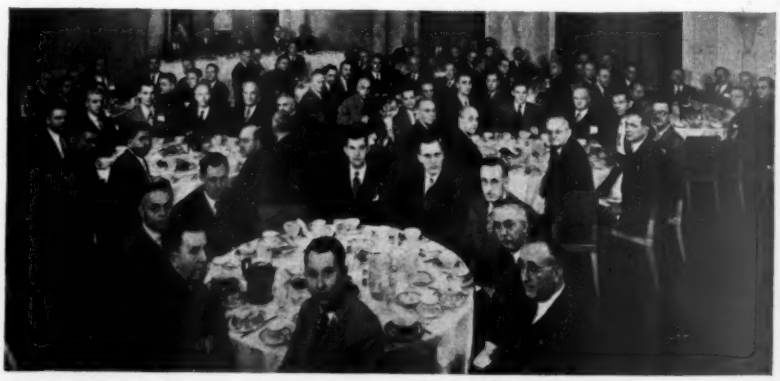
One example given by the speaker was a survey on gas curtailment during unusual winter conditions. Valuable information was obtained showing how many plants had standby equipment, how many planned to purchase such equipment, and how much they expected to spend on it. Another example was a survey to determine how many industrial ovens would be purchased by the metal working industry and what fuels would be used to fire them.

The First Commercial Gas Breakfast was attended by nearly 100 editors of food publications, commercial cooking equipment manufacturers, and commercial gas men from 16 states. So successful was this affair that its continuance in future years is assured.

Donald Nichols, president, Ahrens Publishing Co., New York, as speaker of the day traced the history of the hotel and restaurant business over the past 25 years to the point where it is today



First Commercial Gas Breakfast at Hotel Roosevelt, New York, held in connection with Hotel Show



Industrial Gas Breakfast, held during Metal Show in Philadelphia, Carl Wierum, chairman, A. G. A. Metals Committee presiding, attracted gas men, manufacturers and metal publications editors

Four pictures at right show, top to bottom: (1) Delegates inspecting gas Hi-Speed Heating Unit, one of the many excellent exhibits in A. G. A. combined industrial gas exhibit at National Metal Show in Philadelphia, the country's largest industrial exposition; (2) Crowds at A. G. A. combined commercial gas exhibit at National Hotel Show in New York; (3) View of the industrial gas exhibit at the Metal Show; (4) Representatives who staffed the booths of companies exhibiting in the combined industrial gas exhibit at the National Metal Show in Philadelphia gathered in the A. G. A. Industrial Lounge which featured a display of photos of industrial gas applications

"the third largest retail business in America, exceeded only by grocery and department stores."

Mr. Nichols showed that hotel and restaurant sales total eleven and one half billion dollars annually, and stressed the vital need for adequately trained employees, especially in food service.

He stated that in 1929 18 percent of the average family budget was spent for meals outside the home, whereas in 1946 that figure increased to 25.6 percent and is expected to continue to rise until 1960. Mr. Nichols added that hotel and restaurant operators will depend more and more on kitchen equipment engineers and gas utility representatives.

Industrial heating

● Where can the industrial engineer confronted with a heating problem go for specialized advice? There are three sources of such information:

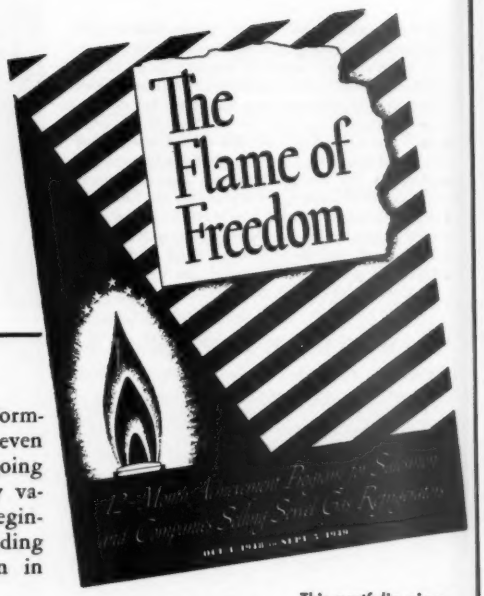
(1) *The local gas company.* Nearly all large gas companies maintain a group of industrial utilization engineers who can supply competent disinterested advice regarding the use of gas fuel. At the very least, they are able to give the names of manufacturers who would be in a position to help.

(2) *Gas Appliance Manufacturers Association* with offices in New York and Washington, D. C., is associated with the American Gas Association and will be glad to transmit requests for assistance in any industrial heating problem to the appropriate member of their organization.

(3) *American Gas Association headquarters* at 420 Lexington Avenue, New York 17, N. Y., has utilization engineers well-versed in every sort of heating problem. Their work has brought them in contact with industrial gas practice all over the country and their job is to assist member companies in their problems. They are interested in the sound and efficient utilization of a valuable fuel.—*Carl Wierum, The Brooklyn Union Gas Co., at annual meeting, The American Society of Mechanical Engineers in New York, November 29-December 3, 1948.*

W. M. JACOBS, *CHAIRMAN* · H. P. MOREHOUSE, *VICE-CHAIRMAN*

Industry opens gas refrigeration drive



This portfolio gives full information on the new program

For the first time since 1941, the Refrigeration Committee, American Gas Association and Gas Appliance Manufacturers Association, in cooperation with Servel, Inc., has announced a full-scale 12-month gas refrigerator sales achievement program.

Known as "The Flame of Freedom" program, this year-round selling activity began on October 1, 1948 and will continue through September 5, 1949. Especially planned to stimulate the industry-wide sale of gas refrigerators by every means of promotion, merchandising and salesmanship available, the program is dedicated to bringing the freedom-giving benefits of gas refrigeration to hundreds of thousands of American families.

The over-all program will be divided into four quarterly sales contests, each with a separate contest theme and separate quarterly awards. "The Flame of Freedom" program, as well as the quarterly sales contests will be open to all registered gas companies, salesmen, distributors, and dealers selling Servel gas refrigerators in the United States.

An important new feature of the campaign is that for the first time distributors and dealers will take an active part in the sales competition and awards. The Refrigeration Committee reports that the 1948-49 program is far bigger and better than those memorable sales contests on gas refrigeration during the pre-war years.

This year there will be many handsome quarterly cash awards for retail salesmen, a special trophy award for winning gas companies, and a total of 40 Servel annual best performance awards for salesmen, gas companies, distributors and dealers.

Remember that famous clipper flight to Bermuda in 1940—or the trip to Miami, Nassau and Havana in 1941? Well, this year's annual best performance award promises to be an even more thrilling experience. It's going to be an all-expense-paid victory vacation flight to Mexico City—beginning in Evansville, Ind., and ending at the 1949 A.G.A. Convention in Chicago.

Why is a 12-month gas refrigeration sales campaign announced at this time? Here's the committee's answer.

A product that is used every day in the year, such as the gas refrigerator, can be sold every day in the year. The opportunity to close orders is a 12-month job.

The experience of gas companies during the prewar years showed that such year-round selling is not only feasible but highly beneficial. It builds a balanced sales volume for the gas company and converts more customers to the use of additional gas appliances.

Moreover, year-round selling permits utility companies and dealers to maintain trained sales manpower, gives salesmen an opportunity to earn good money every working day, and keeps morale at a high pitch.

In many parts of the country today, however, the active merchandising of gas appliances including gas refrigerators, is largely in the hands of nonutility distributors and dealers. Therefore, such Servel distributors, dealers and dealers' salesmen are also to participate in the program.

Dealers' salesmen can compete for quarterly cash awards, and also for the Servel annual best performance award. Distributors and dealers with registered salesmen can also participate in the annual best performance award.

The Refrigeration Committee believes that the addition of this sales manpower to the 12-month program not only will give powerful new stimulus to the competition, but also serve the industry's ultimate goal of placing more and more gas refrigerators in customers' homes.

Any gas company, wishing to register in the year-round campaign or the quarterly contests should write at once to B. H. Wittmann, chairman, Refrigeration Committee, American Gas Association, 420 Lexington Avenue, New York, N. Y. A handsome campaign portfolio already has been mailed to all registered gas companies. The first quarterly sales contest has already started—so you had better get your registration in without delay.

For October, November and December there will be the "Go and Get It" campaign which offers hundreds of handsome cash awards for retail salesmen, a beautiful trophy for the winning gas companies, and a chance to get a leg on the annual best performance award.

Here's the schedule of awards:

Gas companies will compete in this and the three succeeding quarterly contests for a beautiful trophy symbolizing the theme of the year-round program—"The Flame of Freedom." There will be a separate trophy for

each of the seven contest divisions.

The winning utility in each division will secure possession of the trophy for the following three months and will have its name inscribed on it. Winning companies are also in line for the Servel annual best performance award—the Victory Vacation Flight to Mexico City—and a chance to retain permanent possession of the trophy at the end of the 12-month period.

For the top producers in each of the seven divisions of the contest there will be handsome quarterly cash awards.

All sales made during the first quarter contest will also be credited toward the Servel annual best performance award. On the Victory Vacation Flight to Mexico City there will be 16 seats occupied by winning gas company and dealer salesmen.

Non-utility distributors with registered dealer salesmen, who operate in territories served by the winning gas companies in the Servel annual best performance award will receive a Victory Vacation Flight to Mexico City—a total of eight trips in all.

When the high salesman in each division of the 12-month program is a dealer's salesman, the dealer who employs such a salesman will also receive a Victory Vacation Flight to Mexico City with all expenses paid. There will be a maximum number of eight such awards available to dealers.

All gas companies, salesmen, distributors and dealers will compete in one of seven contest divisions which are classified according to the number of domestic meters served in the territory. Special emphasis, however, is being given to the cash awards and prizes for retail salesmen regardless of whether they sell for the gas company or registered dealer. There are 10 quarterly cash awards for the high salesmen in each division, ranging from $25 to $150 each.

The "Go and Get It" campaign began October 1 and will end December 31, 1948.

To participate in any or all of the four quarterly activities of "The Flame of Freedom" program, starting October 1, 1948 and closing September 5, 1949, gas companies must register with the Refrigeration Committee. Gas companies operating branches or districts may register in each branch or district, unless more than one is in the same town, in its proper division. This provides the greatest opportunity for equitable distribution of awards to salesmen and gas companies.

In addition to registering their own salesmen, gas companies may register the retail salesmen of cooperating dealers.

Gas companies that do not merchandise appliances may register the retail salesmen of cooperating dealers. In areas where the distribution of gas refrigerators is handled through non-utility distributors, gas companies may register the salesmen of dealers operating under such distributors.

If the gas company prefers not to register the retail salesmen of dealers operating under a distributor, registrations will be accepted from the distributor.

Whether registered by gas company or distributor, dealers' retail salesmen will compete for awards in the division determined by the number of domestic meters on the lines of the gas company in whose territory they sell.

If a non-merchandising gas company prefers not to enter the competition, it may certify the distributor in its territory as an entry for company awards, provided the gas company will compile the local sales records and certify to their accuracy. Retail salesmen will compete on the basis specified for the division in which their company is registered.

Dealer salesmen may be enrolled and may compete for salesmen's awards if the registering company approves their entry and files registration forms for them.

Reports on each month's refrigerator installations must be made on forms provided by the Refrigeration Committee, and must be postmarked not later than the third of the following month.

OUTSTANDING GAS REFRIGERATOR SALES ACCOMPLISHMENT DURING THE YEAR WILL BE REWARDED WITH...
Victory Vacation Flight
TO MEXICO CITY

Preview of 1949 Victory Vacation Flight (top) taken from the campaign portfolio, and (below) group taking off for Bermuda in 1940 on similar prize trip

W. R. FRASER, *CHAIRMAN* • ERNEST G. CAMPBELL, *VICE-CHAIRMAN*

Section set for greatest year

W. R. Fraser (top, right) Detroit, chairman, Technical Section; E. G. Campbell (center) Chicago, vice-chairman and H. C. Jones (right) Boston, chairman, Gas Production Committee

More than 150 members of the American Gas Association's Technical Section gathered at the Hotel New Yorker in New York, November 3-5, getting the Section's program off to an early start with an over-all program that promises to be one of the most successful on record.

Members of the individual committees and subcommittees received a thorough "briefing" on aims and policy by W. R. Fraser, Michigan Consolidated Gas Co., who will direct the Section's program as chairman, and by E. G. Campbell, The Peoples Gas Light and Coke Co., who will assist Mr. Fraser as vice-chairman. All day conferences were held by 17 important subcommittees.

Second day of the sessions was devoted to planning sessions of the main committees and their review of suggestions offered by their respective work groups. The day's activities culminated in a dinner meeting of the Managing Committee, which was preceded in turn by a meeting of the Section's Executive Committee.

The third day was devoted to joint sessions of program groups of the Gas Production Committee (H. C. Jones, New England Power Service Co., Boston, chairman) and the Chemical Committee (Dr. F. E. Vandaveer, The East Ohio Gas Co., chairman). A similar joint meeting was held by program groups of the Distribution Committee (J. M. Pickford, Northern Indiana Public Service Co., Hammond, Ind., chairman), the Corrosion Committee (S. E. Trouard, New Orleans Public Service Inc., chairman), and the Motor Vehicle Committee (F. M. Rudman, Michigan Consolidated Gas Co., chairman).

These meetings continued throughout the third day with an interval for a joint luncheon of all the program committees. Preliminary plans were completed for the A.G.A. Production and Chemical Conference at the Hotel New Yorker, May 23-25, and for the A.G.A. Distribution, Motor Vehicle and Corrosion Conference at the Netherland Plaza Hotel in Cincinnati, April 4-6.

A newcomer among the Technical Section's main committees is the Corrosion Committee which, with its many ramifications in regard to plant, distribution systems, and customer premises, is expected to be of great value to the industry. The prevention, correction and mitigation of corrosion will be the committee's main objective and still closer liaison will be affected with other corrosion groups throughout the country.

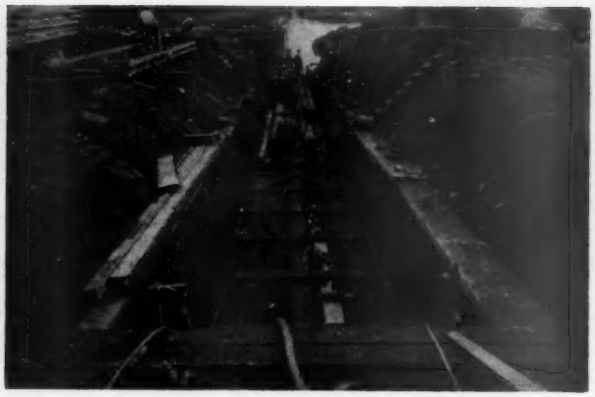
The Subcommittee on Safety of the Gas Production Committee, headed by its chairman, Philip G. Facey, Northampton Gas Light Co., Northampton, Mass., discussed its objective of providing safety rules and operating procedures to cover all methods of gas production now in practice and new methods as they are developed. The group will work in conjunction with the A.G.A. Accident Prevention Committee to study accidents and create new safety rules where needed.

Program Committees of the Gas Production Committee and Chemical Committee met to plan for the year

Left panel, first row: F. M. Rudman, Michigan Consolidated Gas Co., Detroit, chairman, A. G. A. Motor Vehicle Committee; Dr. C. C. Wright, The Pennsylvania State College; (center row) S. E. Trouard, New Orleans Public Service, Inc., chairman, A. G. A. Corrosion Committee; Pat Miller, Texas Eastern Pipe Line Corp., Shreveport, vice-chairman, Corrosion Committee; (bottom row) C. E. Utermohle, Consolidated Gas Electric Light & Power Co. of Baltimore; G. G. Ellerbrock, Wisconsin Public Service Corp., Oshkosh and J. M. Pickford, Northern Indiana Public Service Co., Hammond, chairman, A. G. A. Distribution Committee

Right panel, first row: Ralph H. Meserve, Northern States Power Co., St. Paul, Minn.; G. R. King, Philadelphia Electric Co., chairman, A. G. A. Purging Committee; W. W. McCartney, The East Ohio Gas Co., Cleveland; (center row) Gilbert V. McGurl, Koppers Co., Inc., Kearny, vice-chairman, A. G. A. Chemical Committee; Dr. F. E. Vandaveer, The East Ohio Gas Co., Cleveland, chairman, Chemical Committee; Louis Shnidman, Rochester Gas & Electric Corp.; (bottom row) R. J. Ott, Philadelphia Gas Works Co.; George K. Bachman, Public Service Electric & Gas Co., Newark and A. W. Johnson, Jr., Washington Gas Light Co., vice-chairman, A. G. A. Distribution Committee

Meeting of the Distribution, Motor Vehicle and Corrosion Program Committees at the Hotel New Yorker



Unique under-water pipeline crossings constructed

Citizens Gas and Coke Utility has completed an unusual 800-foot installation across the White River in Indianapolis.

Using steel pipe, which has a "life" of 50-60 years, the extension was welded together section by section on the bank and gradually floated diagonally across the river on sealed oil barrels. When the last section of pipe was welded and tested, the main extended upstream about 1,000 feet from the point where it was to cross the river.

The main was then floated downstream on the oil barrels and brought alongside a new bridge. Railroad iron weights were clamped onto the pipe causing it to sink into a 3½ foot trench, running parallel to the bridge, ten feet below normal water level.

For under-water protection, the pipe was treated with grease, then wrapped in a cloth impregnated with a no-oxide compound and finally coated again with a rust-resisting filler, which acts as a seal on the first two treatments.

This new, larger ten-inch steel main replaces a main removed when the bridge was torn down. Plans have been made to lay another ten-inch gas main on top of the new bridge when it is completed, thus more than doubling capacity to West Indianapolis.

Public Service Electric and Gas Company, for what is believed the first time in the history of the gas industry, has completed an 875-foot underwater gas main installation, without the use of piling, under the Raritan River at New Brunswick. This installation is part of an additional 16-inch main to provide for increased gas consumption in the company's central division.

In previous river crossings, steel pipe was pulled across or dropped into a trench. Through tunnels or along prepared river beds, flanged pipe or ball and socket pipe has been used. For the Raritan River crossing, a "spun" cast iron pipe, equipped with the inner-tite joint, was selected by the Public Service gas department engineers because of its flexibility. It was also decided to install the pipe by pulling it on sleds along the river bottom.

On the New Brunswick side, a cofferdam was driven with an open end toward the river.

At top of page are shown two views of 875-foot under-water gas main installation by the Public Service Electric & Gas Co. of New Jersey. Left view shows pipelines with drums about to be lashed on top to give buoyancy while right view pictures pipe being lowered onto sled. Above is photo of Citizens Gas and Coke Utility installation of 800-foot main extension onto White River

The canal bank was opened to the river and the bed of both the canal and river prepared by digging a trench.

On the Highland Park bank, a ramp was constructed from the water edge, inshore about 200 feet, an ' here the construction of the pipeline was done. Pulling force was provided by a steam crane on the New Brunswick bank of the river, supplemented by two large trucks equipped with capstans. A cable stretched from the crane drum, across the river to the ramp.

As each sled, 36 feet long and seven feet wide, was placed on the ramp, four lengths of 16-foot pipe (two for each line) were set in position on top and held to the sled by iron bands; the sled was pulled forward 36 feet and another lowered into place, secured by bolts to the previous sled. Pipe was lowered and jointed to the pipe on the forward sled. This operation was repeated about every half hour.

The pulling force necessary to drag the heavy pipe was kept to a minimum by the buoyancy of the wooden sled construction. This buoyancy was further augmented by attaching air-tight steel drums to the sled and pipe.

New bulletin discusses gas mixture analysis

METHODS for utilizing analyses of complex gas mixtures as a basis for establishing safe procedures for preventing gaseous explosions and in controlling and extinguishing fires in mines, tunnels, and industrial plants are described in a bulletin released by the Bureau of Mines.

The publication, Bulletin 471, "Analyses of Complex Mixtures of Gases," sells for 75 cents a copy and may be obtained only from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D. C. This bulletin is *not* sold by the Bureau of Mines.

Industry news

Schools to see A.G.A. film strip on gas

AN IMPORTANT step in meeting the need for supplementary teaching materials on gas in the nation's schools has been taken by the American Gas Association in consultation with The Brooklyn Union Gas Company. The answer is a new silent film strip "How We Get Our Gas."

Studies have shown that teachers prefer this type of teaching aid rather than sound slide films because it is easy to pace the silent film to the individual teacher's need. "How We Get Our Gas" has been checked with school authorities who have approved it as an acceptable teaching aid.

The film contains 43 frames covering the manufacture of coal gas and carburetted water gas, the gathering and transmission of natural gas, distribution of gas and utilization. The last five frames present illustrated questions for review and discussion. Moreover, each frame has a two-line commentary at the bottom of the picture. Simplified means of tying into the film strip study related subjects such as arithmetic, science and language, are suggested in the Teachers' Guide.

Minimum orders of four prints (and Teachers' Guides) may be obtained for $10 from the Promotion Bureau, American Gas Association, 420 Lexington Ave., New York 17, N. Y. Additional prints sell for one dollar.

New "Gas Facts" edition published

A NEW edition of "Gas Facts," the outstanding statistical record of the gas industry which was initiated last year, has been completed by the Bureau of Statistics of the American Gas Association and is now being distributed.

The current edition presents in text and tables, pertinent gas industry information covering energy reserves, production, transmission and distribution, sales and utilization, finance, labor and prices, brought up to date to include 1947 figures.

Many suggestions for improvements in the contents and presentation of this statistical year book have been incorporated in the new edition. The Bureau of Statistics received valuable aid from the A. G. A. Committee on Economics headed by Robert E. Ginna, and the Working Statistical Committee under Harry A. Weitzman in producing the current year book.

Copies of the 1947 Edition of "Gas Facts" have been sent to statistical representatives and member delegates of gas utility companies as well as to an extensive list of financial sources interested in gas utility financing and securities.

Because of the expense involved in the production of this comprehensive year book it has been deemed advisable to make a nominal charge of $1.00 each for additional copies. Orders should be addressed to the Bureau of Statistics, American Gas Association, 420 Lexington Ave., New York 17, N. Y.

Ebasco holds annual safety meeting

REPRESENTATIVES of 32 client companies and guests of Ebasco Services Inc., attended the tenth annual Ebasco safety meeting at the Congress Hotel in Chicago, October 18 and 20, in conjunction with the National Safety Congress.

Representatives of electric, gas and transportation companies in the United States, Canada and Cuba discussed mutual problems at the two-day session. The delegates, comprising operating executives and supervisors in addition to personnel, insurance, claims and safety officials, exchanged views and studied ways and means of reducing accidents.

Principal theme of the meeting was a detailed presentation of "The Essentials of a Successful Accident Prevention Program" which was divided into three major elements. W. H. Senyard, director of personnel, Louisiana Power & Light Co., conducted this phase of the program. The first subject under this theme was presented by C. J. Rutland, manager claims, insurance and safety department, Texas Power & Light Co., who spoke on "Safety Organization." A. J. Naquin, safety counselor, New Orleans Public Service Inc., led a discussion and summarization of Mr. Rutland's subject.

The second part, "Methods of Application," was presented by T. O. Perrault, assistant director of personnel and safety, Minnesota Power & Light Co., assisted by E. V. Olson, safety supervisor, The Washington Water Power Company.

The third subject, "Tools and Techniques," was presented by J. O. Speed, superintendent of transportation, Birmingham Electric Company. C. E. Hammon, safety director, Columbus and Southern Ohio Electric Co., led the ensuing discussion. Following complete presentation of "The Essentials of a Successful Accident Prevention Program," there was a presentation and discussion of safe driver training by C. L. Hightower, safety director, United Gas Pipe Line Company.

A half-day session was devoted to a problem forum conducted by J. M. Hinds, training supervisor, Mississippi Power & Light Co., assisted by O. S. Hockaday, superintendent of transmission, Texas Electric Service Company.

At the luncheon on Wednesday, October 20, H. H. Scaff, vice-president, Ebasco Services Inc., announced the standings in the newly inaugurated safety award program. K. M. Robinson, president, The Washington Water Power Co., was principal speaker on "Safety from Management's Viewpoint."

K. R. MacKinnon, president, Ebasco International Corp., whose address before the National Safety Congress the preceding day is carried in this issue of the MONTHLY, then commented briefly on Mr. Robinson's talk.

The luncheon meeting was concluded by the general chairman, W. T. Rogers, safety consultant, Ebasco Services Inc. The meetings were held under sponsorship of the Ebasco insurance department, I. M. Carpenter, manager.

Tenth annual Ebasco client companies safety meeting at the Congress Hotel, Chicago, October 18

Gas men view new peak load plant

THREE PARTIES, totalling 95 gas utility executives, consulting engineers and representatives of government public utilities regulating commissions visited the Riverhead, Long Island plant of the Long Island Lighting Company recently to inspect the company's new catalytic cracking plant for peak load gas production.

Visitors from various sections of the country ranging from New England to Chicago and Washington, D. C., were welcomed by Edward F. Barrett, president, Long Island Lighting Co., who characterized the process as "putting new life" into the gas industry. Frank H. Adams, president, Surface Combustion Corp., Toledo, Ohio, expressed the appreciation of the visiting groups at being permitted to inspect the facilities.

The Long Island catalytic cracking plant, first commercial installation of its kind in the country, was designed by Surface Combustion Corp., and went into operation in January of this year. Operating for approximately 45 of the coldest days of the winter, this plant enabled the Long Island Lighting Company to maintain uninterrupted gas service to its customers on the eastern half of the island. It has since aroused wide interest among gas companies confronted with the maintenance of continuous service during periods of winter peak demand.

A variety of liquid feed stocks, such as propane, butane, casinghead gasoline and natural gas may be converted with air and steam to a fuel gas matching the product normally distributed by the gas company to its customers. The heart of the process is the battery of high temperature catalytic cracking tubes which break down the feed mixture to a light, low heating value gas. This gas is then enriched to the gravity and heating values of the standard gas supplied by the gas company. A feature of the process is the automatic control equipment which permits two men to operate a plant producing upwards of five million cubic feet a day.

Executives inspecting new catalytic cracking plant at Riverhead, L. I. Left to right: E. G. de Coriolis, director of research, Surface Combustion Corp.; Edward F. Barrett, president, Long Island Lighting Co.; Frank H. Adams, president, Surface Combustion Corp.; E. W. Doebler, vice-president, Long Island Lighting Co.; and J. W. Carpenter, vice-president, Long Island Lighting Co.

At the recent Annual Convention (Oct. 4-8) of the American Gas Association in Atlantic City, N. J., Samuel W. Horsfield, Gas Production Manager, Long Island Lighting Co., was awarded the Beal Medal of the Association for his paper describing the Riverhead catalytic cracking plant. The Beal Medal is presented annually by the A. G. A. to the author of the outstanding article on gas technology and allied subjects.

At the Exposition held in conjunction with the same A. G. A. Convention, a pilot plant of the catalytic cracking process was operated by Surface Combustion Corp. engineers. Fuel gas, to meet any desired characteristics, was produced upon request and burned off in a large flare above the exhibits.

First oxygen plant for coal gasification

THE FIRST tonnage oxygen plant to be used for coal gasification purposes in this country will be placed in operation soon at the coal-to-oil demonstration plants of the Bureau of Mines at Louisiana, Missouri.

Originally used by the I. G. Farbenindustrie in making acetic acid and other chemicals at Hochst, Germany, this modern Linde-Fränkl unit was dismantled and shipped to the United States complete save for building, piping, and other materials available here. The plant, which will extract oxygen from the air, has a capacity of 23,000 cubic feet or one ton per hour of 98 percent oxygen. A 50,000 cubic foot gas holder also has been erected.

Cleveland company changes its name

THE Cleveland Co-operative Stove Company has taken the new title of Grand Industries, Inc., but there will be no change in the operation methods of the company's divisions.

Grand Industries, Inc. announces that it will continue to conduct its divisions under the following trade names: Cleveland Foundry Co., Cleveland Distributing Co., and Grand Home Appliance Company. The vitreous enameling division will be operated as the Grand Enameling Company.

Battelle to construct new laboratory

TO HOUSE additional laboratories required for its expanding research, Battelle Memorial Institute, Columbus, Ohio, will begin construction of a new half-million-dollar laboratory building late this year. The structure, according to Battelle Director Clyde Williams, is scheduled for completion in 1949.

The three-story structure will contain space for 103 unit laboratories, plus large open areas for pilot-plant operations. It will contain approximately 80,000 square feet of space.

Wins McCarter medal for life-saving

Claude J. Williams (right), of the Central Hudson Gas and Electric Corp., Poughkeepsie, receiving a McCarter medal and certificate from Ernest R. Acker, president of the company and past A. G. A. president. Mr. Williams was honored for saving the life of a person overcome by gas

A. G. A. schedules home service workshop

THE annual Home Service Workshop of the American Gas Association will be held in Cleveland at the Statler Hotel, January 24-27, 1949. Sponsored by the A. G. A. Home Service Committee, the three and a half day program will cover all phases of home service operation including demonstrations, gas and equipment explanation and promotion.

Some of the highlights will be, "Factors in Sales Promotion" by Raymond J. Vandagriff, general sales manager, The Laclede Gas Light Co., St. Louis; "Fundamentals on the Use of Gas," Edward Nelson, Rochester Gas and Electric Corp.; "The Pen and Pencil Side of Home Service," Florence LaGanke Harris, home economics editor, *Cleveland Press* and well-known author of homemaking books; "Promotion of the Laundry Dryer" by Betty Olson, Hamilton Manufacturing Co. and Mrs. Mary N. Hall, Elizabethtown Consolidated Gas Co., Elizabeth, New Jersey.

Other features will include the "Gay Nineties," a skit and demonstration, Shirley Fegert, The Gas Service Co., Wichita; "How to Use the Gas Refrigerator," Martha Carnes, Servel, Inc.; the "Why of Home Calls" by Mary Huck, The Ohio Fuel Gas Co., Columbus; "Records and Reports" by Mildred Clark, Oklahoma Natural Gas Co., Tulsa; "Foods on Parade" Mary Jean Apt, The Gas Service Co., Missions, Kansas.

Other presentations will include discussions by outside industry speakers of new developments in food utensils and home planning.

Meeting of A. G. A. Home Service Committee in Grand Rapids, Mich., on Tuesday, November 9. (Seated, l. to r.) Flora Dowler, Pittsburgh; Helen Kirtland, Columbus; Mrs. Kathryn Johnson, Spring Valley, N. Y.; Mrs. Jane Watkins, Allentown, Pa.; Jessie McQueen, A. G. A.; Eleanor Morrison, Grand Rapids, chairman; Lois Wilson, Davenport, Ia.; Mrs. Ellen Bridges, Pittsburgh; Julia Hunter, Dallas; Mildred Clark, Tulsa. (Standing, l. to r.) Mrs. Winifred Anderson, A. G. A., Cleveland; Kathleen Atkinson, Providence; Jane Schleicher, Cleveland; Irene Muntz, Rochester; Mrs. Pauline Treisch, Mansfield, O.; Mrs. Vera Ault, Denver and Martha Carnes, Evansville, Indiana

Principal speaker at the opening conference-luncheon will be E. Holley Poe, natural gas consultant. The group will be welcomed by J French Robinson, president, The East Ohio Gas Company. The second conference-luncheon will feature a promotion of the committee-sponsored Career Records entitled 'Home Economics For Me."

Delegates at the conference will be taken on a personally conducted tour of the A. G. A. Testing Laboratories, and will be greeted by Edwin L. Hall, director. Group discussions, which have proved popular at other workshops, will provide get-togethers for review of current activities in home service.

Extra copies of the advance program are available from Jessie McQueen, home service counsellor, American Gas Association, 420 Lexington Ave., New York 17, N. Y.

Home service group prepares for 1949

THE annual meeting of the American Gas Association Home Service Committee was held in Grand Rapids, Mich., on Tuesday, November 9. Eleanor Morrison, home service director, Michigan Consolidated Gas Co., presided as committee chairman. One of the major items on the committee's worksheet is sponsorship of the annual A. G. A. Home Service Workshop in Cleveland, Jan. 24-27.

A questionnaire on home service facts and figures will be conducted throughout the year. Also scheduled are a project on "records and reports," a study of trends in home calls, and a booklet on questions and answers to be used as part of the promotion in the 1949 Water Heating Campaign.

Other members at the meeting who are not shown in the accompanying picture were: Cephalie Lewis, Atlanta Gas Light Co., Atlanta, Ga.; Elizabeth Lynahan, The Peoples Gas Light & Coke Co., Chicago; Katherine Rathbone, Southern Counties Gas Co., Los Angeles; Mrs. Eleanor Wiese, Public Service Electric & Gas Co., Newark, N. J.; Margot Whitmire, Springfield (Mass.) Gas Light Co., and Maxine Howe, Southern California Gas Co., Los Angeles.

Home service records gain recognition

EDUCATIONAL groups have indicated great interest in the Home Service Career Records announced by the Home Service Committee of the American Gas Association. Two large national associations, the American Home Economics Association and the American Dietetic Association, have played the records at their national meetings. Jessie McQueen, A. G. A. home service counsellor, has also played the records before classes in the summer sessions for teachers at Columbia University, and received the comment that they are "unusually well done."

The records were the feature attraction at the A. G. A. Exhibit during the A. H. E. A. convention, and some gas companies already are arranging for exhibits at State Home Economics Associations with the display built around the playing of these records. From the American Dietetic Association, the vocational guidance department chairmen are distributing through their section members a folder giving the synopsis of the records and announcing their availability.

Three of the eight A. G. A. home service career records which have wide national appeal

Approximately 70 A. G. A. gas company members have purchased sets of records for distribution to their local school systems. One sales manager stated, "These records are of extreme value to the industry and should assist materially in developing the urge by students to adopt home economics."

Orders can be placed with the American Gas Association for one set of eight records —$55 f.o.b. Chicago. Any player can be used —78 RPM—and thus the records can be played easily in any school class or auditorium.

Personnel conference considers basic issues

C. G. Simpson, Jr.

R. J. Rutherford

Vernon Myers

Willard Wiegel

James F. Oates, Jr.

FORTHRIGHT discussions of the most pressing industrial relations problems headed the agenda for the Third Annual National Personnel Conference of the Gas Industry in Chicago, November 18 and 19. The sessions were sponsored by the Personnel Committee, Great Lakes Personnel Conference, Midwest Personnel Conference, and Southwest Personnel Conference of the American Gas Association, and attended by 82 delegates from 22 states.

As the opening event, R. J. Rutherford, vice-president, Worcester (Mass.) Gas Light Co., outlined his company's union-management hiring, training and promotion plan. This unique plan involves the setting up of a joint committee of union and management representative to find a yardstick for fair and accurate promotion of qualified employees.

Mr. Rutherford disclosed that his company had appointed a joint committee which had agreed on the following basic elements to be used in analyzing all jobs: (1) Time needed to attain the skill or knowledge required. (2) Availability of company facilities and operations to provide training and development of these required skills. (3) Whether the skill or knowledge is of general industrial application or peculiar to the industry. (4) The possibility of devising a wage and training progression plan within the framework of the existing job evaluations and wage rates.

Following more than a year and a half of study, the plan was put into operation with all job classifications placed within four different groups. Every job was then analyzed by the joint committee and assigned to one of these groups. L. A. Brandt, director of employee relations, The Peoples Gas Light and Coke Co., Chicago, presided at the morning session.

William Gomberg, director, management engineering department, International Ladies' Garment Workers' Union, discussed "The Application of Industrial Engineering Techniques to Collective Bargaining," as the final event at the Thursday morning session.

A special luncheon meeting was featured by a talk "A Discussion of Human Relationships" by James F. Oates, Jr., chairman, The Peoples Gas Light & Coke Company. Charles G. Simpson, Jr., industrial relations director, The Philadelphia Gas Works Co., presided.

Willard G. Wiegel, personnel director, Lone Star Gas Co., Dallas, officiated at the Thursday afternoon session which was opened by W. H. Senyard, director of personnel, Louisiana Power & Light Co., New Orleans.

"Getting employees to share part of the responsibility of good customer relations is not an easy job," Mr. Senyard declared. "The inspiration, the spark, the dynamic force must come from within your own organization. True, help may be obtained from other sources but that alone will not suffice."

He explained that when his company was unable to find satisfactory training material for the job to be done, it prepared a text on employee-customer relations and used the classroom method to put over its instruction. Supervisory members of the company served as instructors.

The cost of an employee attitudes survey is rather high, he declared, "but the cost of not having one may be higher."

Results obtained in separate investigations of the A. G. A. Personnel Committee into the rate of absenteeism and other "fringe benefit" costs, were described by Donald S. Bittinger, personnel director, Washington Gas Light Co., Washington, D. C., and V. H. Luneborg, personnel manager, Arkansas Natural Gas Co., Shreveport, Louisiana.

"Fringe benefit" costs

Mr. Luneborg defined "fringe cost" as "any payment, primarily invisible, over and above an employee's regular rate of pay, the cost of which directly and materially affects production costs. Thus, it is," he said, "that 'fringe costs' do cover a multitude of sins and do involve substantial sums of money. . . .

"With 'fringe costs' as important as they are in the over-all labor picture, managements should insist that the bill for these costs be analyzed from the same standpoint as base wage adjustments," he declared.

"The question should be asked 'Can we afford it . . . not only now, but later.' A systematic and continuing cost analysis of this subject will determine the answer with a minimum of guess work. If it is important to analyze the effects of the application of general wage adjustments—and this is always done—it is equally important that fringe demands be analyzed from the same viewpoint—for both involve money layouts."

Friday morning's session was presided over by Vernon Myers, assistant to the president, Sioux City Gas & Electric Co., Sioux City, Iowa. Dr. Howard A. Lindberg, medical director, The Peoples Gas Light & Coke Co., described and interpreted his company's comprehensive medical and health service program which serves more than 4,000 employees in a single urban area.

The timely subject of pension plans was covered in detail by Roland S. Child, associate manager, employee relations, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y., as the final address on the program. Mr. Child has served as consultant in the development of pension plans for numerous organizations including the American Gas Association and Vassar College.

Mary Huck succeeds Helen Kirtland

APPOINTMENT of Mary Elizabeth Huck as new general director of the home service department, The Ohio Fuel Gas Co., with general offices in Columbus, Ohio, has been announced by W. N. Grinstead, vice-president and treasurer.

Miss Huck succeeds Helen Kirtland, who resigned effective November 19, to accept an appointment as associate household equipment editor of McCall's Magazine in New York City.

Miss Kirtland had been head of the home service department of the Ohio company since 1946, having gone with that company from The New Jersey Power and Light Company in Dover, N. J. At the 1948 American Gas Association convention in Atlantic City, she received the McCall Award in Division A, for the home service worker making the greatest contribution to advancement of homemaking by promoting better use of gas and modern gas equipment. She has served as a member of the national home service committees of the American Gas Association and Edison Electric Institute.

Miss Huck joined The Ohio Fuel Gas Company in 1944 following her graduation from Ohio University. She was supervisor of research in the home service department until 1947, when she was named field supervisor. Miss Huck developed the now widely-known demonstration kit for dealers. In her new position she will direct the work of 30 home economists, each of whom serves professionally under the name of "Betty Newton."

Mary E. Huck

Helen Kirtland

Personal and otherwise

Providence Gas personnel promoted

FOUR personnel changes have been announced by Providence Gas Co., Providence, Rhode Island. Arnot Hirst has been appointed appliance sales manager; Roy W. Worrell, formerly new business adviser, has been promoted to assistant appliance sales manager; Edward P. Burke has been named assistant to the appliance sales manager, and Laurence E. Wagner, formerly chief industrial engineer, has been named engineer of utilization.

Mr. Hirst has been with the company since 1917, having served as purchasing agent from 1924 to 1936 and for the last 12 years as assistant appliance sales manager. He is a member of the New England Gas Association and the American Gas Association.

Mr. Worrell is a graduate of the University of Vermont and has served with the company since 1933. He is executive secretary, Home Builders Association of Rhode Island.

Mr. Burke joined the company in 1918 and has served in various capacities in the sales department. He is vice-chairman of the Industrial Section, New England Gas Association.

Mr. Wagner's service with the company began in 1926. Previous to that, he was an engineer with the United Gas Improvement Co., Philadelphia. He is a member of the American Gas Association and the American Society of Mechanical Engineers.

Arnot Hirst

Home service group elects chairman

ELEANOR MORRISON, director of home service for the Western District, Michigan Consolidated Gas Company at Grand Rapids, has been appointed Chairman of the American Gas Association Home Service Committee by W. M. Jacobs, chairman, Residential Gas Section for 1948-1949.

Miss Morrison is a graduate of Iowa State College with an M.S. Degree from Cornell University. She was appointed supervisor of home economics and cafeterias for the Grand Rapids Board of Education in 1936, and served in that capacity until 1943 when she was given a leave of absence to join the American Red Cross. She served overseas as Club Director in India and Colombo Ceylon from 1943 to 1945.

Miss Morrison joined Michigan Consolidated Gas Company as home service director in October 1945. In 1947 she was made director of home service for the company's Western District.

A staff of 11 home economists carries out a well-rounded program of home service in this company which includes as special features a large enrollment in brides' classes and an outstanding teen-age program.

A kitchen planning section, organized in 1946, also operates as a part of the home service department under Miss Morrison's supervision.

In addition to her work as chairman of the A.G.A. Home Service Committee this year, Miss Morrison is also serving as president of the Michigan Home Economics Association for the 1948-1950 term.

Eleanor Morrison

Rockwell promotion

C. B. JOHNSON has been named chief engineer and E. R. Gilmore director of research for the Pittsburgh Equitable Meter division, Rockwell Manufacturing Company. This move is a direct result of the company's expansion program which necessitates the shuffling of key men to cope with enlarged operations.

Schoenberger acquired by Bell Aircraft

THE entire capital stock of The W. J. Schoenberger Co., Cleveland, Ohio, has been acquired by The Bell Aircraft Corp., Niagara Falls, New York. The new ownership will not change the product manufactured or personnel of the Schoenberger Co., which will operate as a separate, integrated unit in Cleveland.

Efforts of the company will be devoted exclusively to the development and manufacture of valves, fittings and accessories for the gas appliance industry.

Consolidated Edison man wins McCarter award

THE American Gas Association's coveted McCarter Medal and Certificate have been presented to Frank J. Belsey, commercial relations department, Consolidated Edison Co. of New York, Inc., for an outstanding act of life saving. The medal is awarded for the successful resuscitation of a person overcome by gas.

Canadian gas company promotes Dutton

W. L. Dutton

APPOINTMENT of W. L. Dutton, head of the engineering department, as operations manager, Union Gas Company of Canada, Ltd., Chatham, Ontario, has been announced by Thomas Weir, general manager.

Mr. Dutton will have supervisory responsibility over all operating departments of the company throughout the system from London to Windsor and from Sarnia to Lake Erie. These include gas supply, both natural and manufactured, compressor stations, transmission lines and distribution systems in the various markets.

Born in Ingersoll 41 years ago, Mr. Dutton first worked for the company as a student in the summer of 1930. He rejoined the company upon graduation in civil engineering from the University of Toronto in 1931. Since that time he has worked in all branches of the engineering department.

Mr. Dutton is widely known throughout the Canadian engineering profession. He is a member of the Engineering Institute of Canada, the Associations of Professional Engineers of Ontario, and the American Gas Association.

Consolidated Edison selects trustee

HARLAND C. FORBES, vice-president in charge of development and planning, Consolidated Edison Co. of New York, Inc., has been elected a trustee of that company and appointed to the executive committee of the board of trustees. He fills the vacancy caused by the resignation of Herbert C. Davidson, who retired from his post as a vice-president early this year.

Mr. Forbes joined The New York Edison Company, a predecessor of Consolidated Edison, in 1924. He is also a vice-president of the New York Steam Corporation and chairman of the Consolidated Edison System Financial Advisory Committee.

Conlon-Moore employees promoted

A. T. BLAKEMORE, veteran in the household washer industry, for the past four years connected with the Conlon division, Conlon-Moore Corp., Chicago, has been made the division's sales promotion manager. Earl Stiefel, formerly purchasing agent, Moore division, Joliet, Ill., previously in the same post for the Round Oak Stove Co., has been made general director of purchases for both divisions and transferred to Chicago.

Harry T. Worthington, vice-president, Moore division, is chairman of the sponsors' committee and a member of the executive committee of the gas space heater division, Institute of Cooking and Heating Appliance Manufacturers, which holds its sixteenth annual convention in Cincinnati, December 6-8.

Martha Carnes heads Servel institute

Martha Carnes

APPOINTMENT of Martha Carnes, former assistant home economics director for Servel, Inc., Evansville, Ind., as director of the Servel Homemaker's Institute has been announced by R. J. Canniff, advertising and sales promotion manager.

Miss Carnes joined the firm in 1946 and is a former dietitian of the Welborn Memorial Hospital in Evansville. She is a graduate of Purdue University and a native of Evansville.

Brandt heads A.G.A. presonnel group

L. A. Brandt

LESLIE A. BRANDT, chairman of the Great Lakes Personnel Conference, American Gas Association, and assistant to the vice-president and director of employee relations, The Peoples Gas Light and Coke Co., Chicago, Ill., has been appointed chairman of the A.G.A. Personnel Committee, according to an announcement by Robert W. Hendee, Association president.

Mr. Brandt has been employeed by The Peoples Gas Light and Coke Company in various capacities since April, 1934. He received his degree as Master of Business Administration from the University of Michigan in 1931, and has been a Certified Public Accountant since 1935.

The A.G.A. Personnel Committee has just completed one of the most successful years since its inception, according to the report recently issued by C. G. Simpson, retiring chairman of the committee. The group cooperated with the Association's Midwest and Southwest Personnel Conferences in a series of meetings that proved of great assistance to participating companies. Under the sponsorship of the A.G.A. Personnel Committee, the Great Lakes Personnel Conference of the A.G.A. was organized last year with representation from about 25 companies having 50,000 employees.

More than 2,000 industrial relations experts attended the mid-winter Personnel Conference of the American Management Association in Chicago, including a notable gathering of public utility personnel executives under the sponsorship of the A.G.A. and the Edison Electric Institute Personnel Committees.

A special luncheon was sponsored by the Personnel Committee at the 1948 A.G.A. convention in Atlantic City with Dr. Leo Wolman, economist at Columbia University, as guest speaker. The group also arranged for an address by Lawrence A. Appley, president, American Management Association, at the convention general sessions (see November 1948 A.G.A. MONTHLY. M. V. Cousins, perpersonnel director, United Gas Pipe Line Co., a former member of the Personnel Committee, and past-chairman of the A.G.A. Southwest Personnel Conference, addressed the Natural Gas Department meeting at the convention.

Under the direction of a subcommittee of the A.G.A. Personnel Committee, arrangements have been made with the Institute of Gas Technology to make available to the gas industry three home study courses, one on manufactured gas, one on natural gas including transmission, and a third on distribution and utilization. Other subcommittees have been active on important projects including tests for the selection of meter readers, absenteeism, placement and compensation for handicapped and aged employees and fringe labor costs.

Citizens Gas appoints Dorothy Fulton

D. A. Fulton

DOROTHY A. FULTON has been appointed home service director for the Citizens Gas and Coke Utility, Indianapolis, Indiana.

Miss Fulton is from Minneapolis where she was formerly a member of the Betty Crocker Staff, the home service department of General Mills, Inc. Prior to that, she was with the appliance department of General Mills as training director for the retail store demonstrations, and conducted Betty Crocker Cooking Schools. In addition, Miss Fulton was an instructor in home economics for two years.

Miss Fulton took her training at Stout Institution, Iowa State College, and did graduate work at University of Minnesota.

Dillin fills San Diego commercial post

H. G. Dillin

H. G. DILLIN, who has been associated with the San Diego Gas & Electric Company in various capacities since 1924, has been appointed commercial manager of the company. He has been serving as rate engineer since 1932 and prior to that was employed in the record, appliance sales, and new service departments. Mr. Dillin succeeds Alfred May, who recently retired after 37 years' service with the company. The new commercial manager is a member of the American Gas Association.

Meter authority honored in Brooklyn

A BANQUET to celebrate Fred W. Gottschling's thirtieth year with Superior Meter Co., Inc., Brooklyn, N. Y., was held on September 30 with numerous gas company executives and meter engineers present. Mr. Gottschling, the company's factory superintendent, is one of the country's recognized authorities on gas meters, having spent 45 years in that field.

Ramsey appointed to Baltimore position

ALFRED P. RAMSEY, who has been assistant general counsel for Consolidated Gas Electric Light and Power Co. of Baltimore since 1927, has been appointed general counsel of the utility, President Wm. Schmidt, Jr. has announced. Mr. Ramsey's appointment fills the vacancy created by the death of Edwin M. Sturtevant who was general counsel since 1927.

Crossley receives Oklahoma promotion

M. S. Crossley

MARLIN S. CROSSLEY, General Auditor, Consolidated Gas Utilities Corp., Oklahoma City, since 1935, has been elevated to the position of assistant treasurer, according to an announcement by Norman Hirschfield, president.

Mr. Crossley joined the Consolidated firm in January 1930. Prior to that time he had been connected with Oklahoma Gas & Electric Company and later with Oklahoma Natural Gas Company in an accounting capacity. Mr. Crossley is 38 years old.

How to improve public relations

● Good public relations is a gem of many brilliant facets. Leon F. Roberts, general representative of the Gary group of independent telephone companies, is familiar with most of the flashes and lasting qualities of the numerous methods used in obtaining favorable public relations. At a recent meeting of the Kentucky Independent Telephone Association, Mr. Roberts discussed the fundamentals of the problem and also injected a thought regarding the effect of sincerity and humor. He said the chief ingredient in a sound public relations policy for any business utility or otherwise, is sincerity. Mr. Roberts stated further:

". . . If we are sincere in what we are trying to do, those with whom we associate and among whom we move are quick to sense it. If we are insincere, people are quick to detect it.

"Our sincerity might be spiced with a little humor now and then. Only recently one of the industry journals reported that some utilities have found that humor can be injected into their dealings with the public with resultant improvements in public relations. A power company, for example, in connection with an underground conduit project, has made use of construction signs that read, "Slow Down a Bit Until the Electric Lights Are In," and "A Slight Delay, Please Bear It and Grin." Other companies are printing either verses or philosophies on their bills to get across some point in a humorous vein. The advocate of this lighter-vein philosophy opines that much of the lack of consideration the public sometimes shows utilities may de due, not to service shortcomings, but to the trite, stiff-necked, stereotyped, and "strictly business" attitude assumed by some companies.

"I am merely passing this viewpoint on as an idea worth trying. Some of you may want to use it, some of you may not. I don't think I need to caution that it can be dangerous if it isn't handled judiciously."

In a more serious vein, Mr. Roberts defined good public relations as the application of the Golden Rule. He likes this definition better than most because adherence to that rule—"All things whatsoever ye would that men should do unto you, do ye even so unto them" promotes good will.—*Public Utilities Fortnightly.*

OBITUARY

Edwin M. Sturtevant

prominent Baltimore lawyer and general counsel of the Consolidated Gas Electric Light and Power Company of Baltimore, died Friday, November 12, at the Union Memorial Hospital after a short illness.

Mr. Sturtevant was a graduate of the University of Maryland Law School and studied Constitutional and International Law at Johns Hopkins University. He was regarded as an authority on public utility law and was the author of numerous papers on legal and allied subjects.

He entered the legal department of the Gas and Electric Company in January 1912, and was made general counsel in July 1927. He was a member of the Bar Association of Baltimore City, Maryland State Bar Association, and American Bar Association.

Frank Scott

died following a heart attack suffered at the Georgia-Alabama football game. Mr. Scott had been safety director, Southern Natural Gas Co., Birmingham, Ala., for the past six and one-half years. He also represented the Southern Gas Association on the American Gas Association Accident Prevention Committee.

Ernest Bancroft Jr.

general manager and assistant treasurer, The Floyd-Wells Co., Royersford, Pa., died in Chicago, Ill., October 20 following a heart attack. He had been associated with the range firm since 1936.

Mr. Bancroft was president, Manufacturers Protective and Development Association, and a member of the board of trustees, Cooking and Heating Appliance Manufacturers, Washington, D. C.

B. Malcom Erickson

died November 2 in Denver, Colo., following a one-week illness. Since February 1, 1935 he had served as a member of The Public Utilities Commission of Colorado, and was chairman at the time of his death.

Mr. Erickson graduated from the law department, University of Colorado, following which he engaged in private law practice until January 1917. He was assistant district attorney for the state's Third Judicial District until January 1928, and district attorney from January 1928 until January 1932.

Because of his accomplishments in the utility field, he was appointed a member of the executive committee, National Association of Railroad and Utilities Commissioners, and also a cooperator in national bus fare investigation.

Wisconsin association holds convention

MANY of the necessary steps to be taken by utilities in preparation for the introduction of natural gas were outlined at the annual convention of the gas and electric sections, Wisconsin Utilities Association, in Milwaukee, November 1-3. Registration totaled 464 persons.

Meeting on November 1, the gas technical division considered experiences with natural gas conversions and held a symposium on changeover and conversion to LP-Gas. At a joint luncheon the same day, E. G. DeCoriolis, director of research, Surface Combustion Corp., discussed catalytic reforming. Other topics included peak load experiences, production of high B.t.u. oil gas for peak shaving, high B.t.u. oil and LP-gas as standby for natural gas.

The gas commercial sessions at a joint luncheon on Monday heard C. T. Dickeman, vice-president, Michigan-Wisconsin Pipe Line Co., discuss progress of the new pipeline which will bring natural gas from Texas to Wisconsin.

Service to Wisconsin is still expected to commence on July 1, 1950, he declared.

The gas commercial session on Monday afternoon, included the following talks: "Water Heating in the Nude" by R. M. North and H. B. Kivlan, Ruud Manufacturing Co.; "Naturally, Air Conditioning" by John Gilbreath, Servel, Inc.; "Women Have Angles As Well As Curves" by H. D. Valentine, The Peoples Gas Light & Coke Co.; "Selling Today's Market" by Harold E. Jalass, Cribben & Sexton Company.

At the joint Commercial-Technical Gas and Electric sessions on Tuesday, W. E. Schubert, the association's president, brought delegates up to date on the industry's expansion plans and discussed the needs of a pervasive accident prevention policy.

Theron Brown

J. H. Dunham

Theron Brown, Madison Gas & Electric Co., was elected chairman of the technical division of the gas section. J. H. Dunham, Wisconsin Gas and Electric Co., Racine, was elected chairman of the commercial division, gas section.

Associated organization activities

International gas conference planned

THE Fourth International Gas Conference sponsored by the International Gas Union will be held in London June 15-17, 1949. The International Gas Union is comprised of national gas associations throughout the world, with headquarters at London and Zurich. International activities which were interrupted during the war were resumed in 1946.

At the London meeting next year reports prepared by national associations and papers submitted by individual members will be presented. Papers and discussions will cover all phases of gas making, including manufacture, distribution, utilization, research and statistics.

Participants at the conference also are invited to attend the eighty-sixth annual meeting of The Institution of Gas Engineers in London, June 13-14, 1949.

S. G. A. stages two regional round-tables

TWO regional home service round-tables were held by the Southern Gas Association in November. The southwestern area directors' meeting was held in Oklahoma City on November 1, and the southeastern area departments in Birmingham, Ala., on November 8. Presiding were Mary Ellen Loughlin, sponsor in the southwestern area, and Thelma Holmes, Alabama Gas Co., in the southeastern area.

Round-table discussion topics included home calls, school programs, demonstrations, women's club programs and women's club demonstrations. R. R. Suttle, S. G. A. managing director, attended both conferences, and Jessie McQueen, American Gas Association, the Oklahoma City meeting.

N. E. G. A. holds home service conference

THE relationship between home economics education and utility home service work was explored as the theme of the New England Gas Association's annual Home Service Development Conference in Boston on October 22. Ella Heyne, home service director, Northampton (Mass.) Gas Light Co., presided at the morning session as chairman of the Education Conference. In the afternoon, Margot Whitmire, Springfield (Mass.) Gas Light Co., presided as chairman of the N. E. G. A. home service group.

Two discussions by utility sales managers were presented by Bernard T. Poor, Blackstone Valley Gas & Electric Co., at Woonsocket, R. I., and John A. Hiller, Portland (Maine) Gas Light Company. These were followed by talks by two educators, Dr. Olga P. Brucher, head of the home economics department, Rhode Island State College, and Mary C. Starr, Simmons College, Boston.

The sales managers described all phases of home service work which for best operation need graduates in home economics possessing inherent capabilities in the customer contact phase. The two school representatives indicated the present-day curriculum consideration of business interests. Both stressed the hope for cadet experience in utility work before graduation as a help both to students and teachers.

Utility programs under way in different New England companies were discussed briefly at the afternoon session by H. Dorothy Keller, Blackstone Valley Gas & Electric Co., Dorothy O'Meara, The Bridgeport Gas Light Co., Mrs. Gladys Bramblett, Fall River Gas Works Co., and Mrs. Arra Mixter, The Hartford Gas Company.

Next came a resume of five special home service activities carried on in different companies, presented by Hazel Cheever, Arlington Gas Light Co.; Susan Mack, Boston Consolidated Gas Co.; Gertrude Crosthwait, The Connecticut Light & Power Co.; Ruth Weld, Lynn Gas & Electric Co.; and Mrs. Lyda Flanders, Worcester Gas Light Company.

In a dramatic closing event, William J. Foster, George D. Roper Corp., discussed the "Appliance Selling Phase of Home Service." He listed the importance of the school program, leads for sales, employee training and publicity about home service work when extended throughout the entire company organization.

Associations

● Trade Associations are an inherent part of our democratic system. They provide a medium through which all firms—from the smallest to the largest—in any business or industry may join forces and work together for their common good. In any line of business the benefits of association action, such as increased efficiency, improved products, better marketing, elimination of uneconomic restrictions and practices, are reflected throughout the entire business community, and ultimately are passed on to the customer of business.—*U. S. Chamber of Commerce.*

Independent natural gas men elect Harper

A. B. HARPER, president, Arkansas-Oklahoma Gas Co., Fort Smith, Ark., was elected president of the Independent Natural Gas Association of America at the fourth annual meeting in Tulsa, Okla., October 26. Attendance at the meeting was the largest ever recorded.

Named to serve with Mr. Harper during the coming year were: *First vice-president*—J. H. Dunn, president, The Shamrock Oil & Gas Co., Dallas, Texas; *Second vice-president*—William H. Wildes, president, Republic Natural Gas Co., Dallas, Texas; *re-elected treasurer*—F. W. Peters, treasurer, Oklahoma Natural Gas Co., Tulsa; *executive director*—John A. Ferguson, Washington, D. C.

Both Joseph Bowes, president, Oklahoma Natural Gas Co., Tulsa, Okla., and Paul Kayser, president, El Paso Natural Gas Co., the retiring president and first vice-president, respectively, were retained as members of the board of directors.

Among the highlights of the meeting was an address by N. C. McGowen, president, United Gas Pipeline Co., Shreveport, La., entitled "Natural Gas Reserves in the United States." The speaker revealed that the American Gas Association Committee On Reserves, which he heads, plans to broaden the scope of its studies this year. This group, he said, will give particular attention to gas in underground storage with a view to avoiding any possibility of duplication of production figures. The committee also plans to consider the advisability of issuing a set of definitions covering terms which are generally used in natural gas production.

H. Leigh Whitelaw, managing director, Gas Appliance Manufacturers Association, in discussing the steel situation, revealed that the natural gas pipeline system today exceeds the railway mileage in the U. S. by 17,000 miles and exceeds the oil pipelines by more than 100,000 miles.

"If the unbalance between the cost of gas and the present cost of oil and coal continues, our gas transportation system could be doubled in the next ten years and still fail to satisfy our demands," he declared. "It isn't difficult to see that steel practically becomes the deciding factor of how far and how fast we are going."

PAR Program

(Continued from page 5)

of these companies faced peak-load difficulties and the necessity to implement their source of supply. There were $550,000 devoted to gas production and mixed gas research in the fourth year. This is about the amount to be required in the fifth year.

New data uncovered in the catalytic reforming of hydrocarbons are being put to immediate and practical use by several gas companies. The research work done on mixed gases is of equal interest to all companies and has been summarized in a series of comprehensive reports which will be most valuable to any company which distributes mixed gases or expects to change the characteristics of the gas distributed as a base-load or peak-load operation.

Twelve research bulletins were published during the past year on a variety of utilization problems.

A new and improved regenerative process using heavier and cheaper oils for the manufacture of 1,000 B.t.u. gas has been brought to a successful conclusion at the plant of the Consolidated Gas Electric Light and Power Co. of Baltimore. This process makes possible a reduction of 30 percent or more in the cost of gas-making fuels. In addition, the thermal capacity of existing sets can be increased by at least 35 percent and newly designed equipment can be installed at one half the usual cost per therm.

The gas industry has been fortunate in uncovering so promptly basic data on production of gas by catalytic reforming and the use of heavy oils, and the information on utilization of mixed gases. It has been calculated that in the automatic industry 10-15 years is required after research is initiated before it could uct. It is expected that exploration of utilization problems common to all gas appliances will encourage manufacturers to carry further fundamental research in their own specific fields and to make a greater use of all the data uncovered when designing their particular product.

Of great interest to natural gas companies and pipeline companies is the continued research in controlling and gauging combination gas and and oil wells, the possibilities of removal of excess nitrogen from natural gas, and the pipeline flow investigation. These long-term projects, conducted by the Bureau of Mines on a cooperative basis, have shown encouraging results.

Above and beyond the active projects, certain intangible, but no less important advantages have accrued from this research program.

A first and obvious consequence has been a much better correlation and dissemination of existing knowledge and information in the general field of gas technology. Under the stimulus of this program, a great number of talks, technical reports and publications have been made by indiivduals. Included in the above are papers by such leading production engineers as Dashiell, Boyer, Kruger and others on ways and means of increasing the capacities of existing equipment and better utilizing the available raw materials.

Furthermore, the PAR program has stimulated a greater degree of voluntary activity by many research and technical committees.

A single example will prove the point. In the past year a 19-man committee held eight meetings lasting from one to three days each, including some Sunday and evening sessions. The meeting places ranged from Chicago, Illinois, to Asbury Park, New Jersey. Many of these same men also serve on the underlying committees supervising the conduct of the individual projects. The roster of the research committes of the Association includes outstanding specialists in their respective fields who are taking time to meet and determine what problems are of most interest to the industry as a whole and to decide what can and should be done to solve them. The importance to the gas industry of this vast program of volunteer committee work seems evident.

Another of the intangible benfits which is becoming more evident as the program matures is the unifying influence of the PAR program.

It has been shown that the peak load problems and the problem of gas utilization in the domestic and commercial fields are of common interest. There are other special projects as well. For instance, the growing demand for the natural gas has directed increased attention toward improved methods for the removal of sulfur from so-called "sour" gas. Therefore, the problem of organic sulfur and processes for its removal is not limited to the manufactured gas areas.

Moreover, the introduction of natural gas into manufactured gas areas will not solve the peak load problems of the latter because of the increased demands for house heating which will follow.

Therefore, the A. G. A. research program directed primarily to peak loads is of growing interest even to the producers of natural gas.

Thus, the research program of the Association, supported by the PAR fund, has become a great unfying force in the gas industry.

Accident prevention

(Continued from page 10)

in every sense of the word is a *real person*. We all know the "tough guy" type of foreman who can only show his authority by barking orders and bawling out his subordinates. We want none of that type in our industries today.

We need leadership in its highest sense, and a foreman who would be a real leader not only must know the technical details of his work, but must also be a student of human nature and a natural psychologist. He must be able to analyze his men and understand their moods, and in this neurotic world most of us have our moods, our fears and our phobias.

How often have we seen accidents occur for which their seemed no possible reason—frequently to some worker who is known for his interest in safety. How many of those accidents were caused by blackouts due to emotional upsets we shall never know, but I venture to say there are many of them.

We are learning a good deal about the mental conflicts that entirely normal people go through—caused by unhappiness at home, feeling of lack of security, or perhaps some deep seated neurosis acquired in youth. While we cannot expect our foremen to be able to get to the bottom of these neuroses, that is the job of a psychologist or a psychiatrist, foremen should learn to recognize the neuroses when they see them. They should understand the emotions of their men and be close enough to them to know when they should not be allowed to work in hazardous positions.

While utilities may not require as much psychological attention as many other industries, particularly those with assembly-line jobs, I am sure that in our industries we must give more attention to how and where we work our men.

This is something to which we must give a great deal of study in the future, if we are to turn our accident curves down. Not only must our foremen study their men, but our superintendents must study the foremen to see that they too are free from neurotic tendencies which make them—and through them, their men—accident prone.

And while the superintendents are checking the foremen, who will do the the checking on the superintendents? We must be sure that they too are schooled in safe operating methods and in human relations. They must have a full and penetrating awareness of their responsibilities. It ought to be easier for them to become safety conscious than it is for our managers and presidents. They are closer to the accidents and to the men who are injured, but they too should receive from their supervisors both guidance and assistance.

Safety directors should not be afraid to give advice to their supervisors right up to the top management, even though it is not popular. Their chief executives are no doubt interested in safety, or think they are. It is the safety director's job to show the boss how he can turn that *interest* into effective *work* in preventing accidents. Officials in line of authority must learn to accept their full responsibility for accidents, and the higher the official, the greater the responsibility.

I think the reason so few top executives get really stirred up about it is due to the fact that they seldom, if ever, get to the scene of an accident. They seldom actually see what happens to a man who is killed or permanently injured because of improper operating methods, or because somebody blundered. If the chief executive attended the funerals as the safety director does, he might wonder sometimes what *he* could have done to save those lives.

This program is one for all hands to work on. If we put into effect these ideas, not in a comparatively few companies as at present, but on a nationwide basis, I feel sure that we shall soon see a marked drop in our accident curves. The trend should then be permanently *down*.

Air Conditioning

(Continued from page 7)

distributed approximately 15,000 copies of specialized Servel air conditioner promotional literature and developed many good prospects for future sales.

During the year, nine general sales promotional meetings were held at key locations throughout the Southern California Gas system.

Two full-time architect representatives were used to continuously promote all-year gas air conditioning and other gas appliances with architects. In addition, six full-time builder and contractor representatives carried through similar promotions in their field. Six hundred copies of the "A. G. A. Reference Manual on Modern Gas Service" were placed in the hands of influential designers and builders. Down-to-earth copy and "live" demonstrations played a prominent role in the drive's success.

Testing for meter readers

(Continued from page 17)

its staff a person trained in validating tests, and does not know where such service is available.

For the past three years, the A.G.A. Personnel Committee, through the Subcommittee on Employment Tests, has with the assistance of six cooperating companies, carried on research in the development of tests for the selection of meter readers.

Originally seven tests were administered to 83 meter readers of three utilities. Of these, three tests requiring approximately 20 minutes for administration were found to discriminate between meter readers classified as *better 75 percent* and those classified as *poorer 75 percent* on the basis of job performance reported in number of meters read per subtraction error.

A study of these three tests involving the 83 meter readers in the companies used in the original experiment and 124 meter readers employed by three other cooperating companies, showed that they were promising instruments for the selection of classified meter readers.

As a result, the American Gas Association is offering the test battery to the gas industry for further experimentation and research. The tests can be administered easily, and scored by a member of any company's personnel staff, using a manual prepared by the committee. The A.G.A. requests, how-

ever, that interested companies obtain competent assistance in validating the test results against their own standard job performance criteria and in establishing the most efficient passing scores, which may vary with the employment market in a particular locality.

Impact of costs

(Continued from page 25)

costs. It is, in my opinion, necessary in order to assure the capital required to replace plant facilities and to insure a continuity of satisfactory service.

What are the practical means of ascertaining or assembling the necessary facts. I will discuss this in two phases; first, annual depreciation, and second, reserves.

It is necessary to be practical in approaching the determination of the proper annual depreciation charges on replacement costs. Being in the appraisal business I cannot miss the opportunity to add that outside, disinterested appraisal service is the best answer. However, if this problem were to be turned over to outside service organizations, which it will not be in large part, it could not be serviced.

By and large, members of the American Gas Association have good property records on cost and dates of construction. For much of your property you have to know your present costs for estimating insurance coverage and for estimating new construction expenditures. Use this information to estimate present replacement costs. You can develop a trend either with your own staffs or by consultation with outside service organizations.

Realize or analyze the problem. Estimating a rate of depreciation either for units or groups is not subject to exact determination. Unnecessary refinement in the replacement computations at prohibitive cost is not warranted. You must, if your procedure is to be effective, follow the price changes in future years and annual redetermination of replacement cost in detail is not economically practical.

Your follow through in subsequent years should endeavor to gauge the major swings, upward or downward, as conditions change. For most properties there are important major units that control the larger percent of the total investment. If these are reasonably controlled, the same averages can be applied to the minor facilities, and give results within practical limitations.

I am not inclined, except for special purposes, to recommend the general establishment of a reserve to take up the difference between the reserve accrued on original cost for the years of expired service, and the amount that would be accrued if present replacement costs were used. On the other hand, I do think it is desirable to have a reserve, which for a better designation I will refer to as a replacement reserve, into which would be credited the excess of the depreciation computed on cost that is charged against current operations.

There are special cases where concerns are faced during this post-war period with substantial reconstruction, rehabilitation, or replacements, often involving substantial outlays. Where such conditions exist, it is often desired to budget ahead the funds required. Where such conditions occur, it is often desirable to review rather carefully the property to be replaced and its cost in comparison with present prices. The excess cost is often set up as a reserve appropriation from surplus, or if the program takes some time, provided in annual surplus appropriations. These are special studies for the information of management or as explanation to stockholders for the withholding of portions of the earnings.

Such special reserves may serve a useful purpose, but I do think they should not include expansion or growth under the guise of replacement reserves. Also the program should be definite and not just something that might happen in the future, which management wants to use as an excuse for retention of earnings. If such, call it a contingent reserve and make such explanation as your ingenuity or conscience may dictate, or your board will approve.

In making the recommendation that a replacement reserve be established for the amount charged against operations in excess of cost I make one reservation—that is, that if such a reserve is established, it should be done in connection with a definite plan for the utilization of this reserve from time to time as replacements are made. I do not think it is desirable merely to set up this reserve and hope later that there may be sufficient decrease in prices so that the depreciation on replacement costs will be less than on original costs, and thus provide a means of ultimately reducing the replacement reserve established.

It is my suggestion that retirements against this replacement reserve should be made from time to time as original property is actually retired from service and replaced either with comparable facilities or with other facilities to render an equivalent function.

I do not suggest that each of the old facilities should be matched against the new coming in. I think this would be prohibitive detail. However, I do think that as retirements are made, knowing the original cost which should be eliminated in any case from the records, that a reasonable estimate can be made of the comparable costs of replacement today by the same general means as explained in estimating the overall current replacement costs. The difference between the original cost and the estimated replacement cost of facilities being retired each year would thus be the figure by which the replacement reserve should be reduced.

In making this suggestion, I am aware of the fact that if substantial retirements are made, the reserves established might be insufficient to provide for the charges, but certainly the amounts already provided would be helpful in meeting the funds required. This procedure also has a definite advantage that this reserve would not be a one-way account. Funds retained in the business would be used for the purpose for which they were set up, namely to insure or to assist in part in maintaining the facilities required for the continuity of the business.

A. G. A. Proceedings Available

Copies of the 833-page, 1947 A. G. A. Proceedings covering reports, papers and discussions of the 1947 A. G. A. Convention in Cleveland, Ohio, are available. Orders should be addressed to the American Gas Association, 420 Lexington Avenue, New York 17, N. Y. Cost $3 per copy to members.

Anyone having an extra copy of the 1944 A. G. A. Proceedings please contact L. J. Eck, vice-president, Minneapolis Gas Light Co., Minneapolis 2, Minn.

CONVENTION CALENDAR

1948

DECEMBER

November 28-December 3 •American Society of Mechanical Engineers, Hotels Pennsylvania & New Yorker, New York

1949

JANUARY

24-27 •A. G. A. Home Service Workshop, Hotel Statler, Cleveland, Ohio.

24-27 •American Society of Heating & Ventilating Engineers, Stevens Hotel, Chicago, Ill. (A. G. A. will exhibit)

24-28 •International Heating and Ventilating Exposition, International Amphitheatre, Chicago, Ill. (A. G. A. will exhibit)

28 •Pennsylvania Gas Association, Mid-Winter Sales Conference, Benjamin Franklin Hotel, Philadelphia, Pa.

MARCH

17-18 •Oklahoma Utilities Association annual convention, Hotel Tulsa, Tulsa, Okla.

24-25 •New England Gas Association, annual meeting, Hotel Statler, Boston, Mass.

28-30 •A. G. A. Mid-West Regional Sales Conference, Residential Gas Section, Edgewater Beach Hotel, Chicago, Ill.

APRIL

4-6 •A. G. A. Distribution, Motor Vehicle and Corrosion Conference, Netherlands Plaza Hotel, Cincinnati, Ohio

5-7 •A. G. A. Sales Conference on Industrial and Commercial Gas, Andrew Jackson Hotel, Nashville, Tenn.

5-7 •G. A. M. A. annual meeting, Broadmoor Hotel, Colorado Springs, Colo.

10-12 •Gas Meters Association of Florida-Georgia Annual Meeting, Ponce de Leon Hotel, St. Augustine, Fla.

11-13 •A. G. A.-E. E. I. Spring Accounting Conference, Hotel Book-Cadillac, Detroit, Mich.

11-13 •Mid West Gas Association, forty-fourth annual convention, Hotel Fort Des Moines, Des Moines, Iowa

11-13 •National Association of Corrosion Engineers, Netherland Plaza, Cincinnati, Ohio

12-14 •Southwestern Gas Measurement Short Course, College of Engineering, University of Oklahoma, Norman, Okla.

20-22 •Southern Gas Association, annual convention, Buena Vista Hotel, Biloxi, Miss.

22 •The Maryland Utilities Association, annual meeting, Lord Baltimore Hotel, Baltimore, Md.

28-29 •Indiana Gas Association, annual convention, French Lick Springs Hotel, French Lick, Ind.

Industrial relations

(Continued from page 25)

surveys and the authors have carefully analyzed the need for wage data. They have outlined the difficulties most likely to be encountered in securing comparable data, and discuss the inadequacy of many present wage surveys. However, they have not confined their efforts to a critical analysis of existing surveys but have presented methods to be employed which will secure reliable wage data.

Two principal sections in the manual are: Who Should Make Surveys, and Procedures to be Followed in Conducting a Survey.

The latter contains a detailed description of the varous steps involved in a survey, such as determining jobs to be included; making, securing, or adapting job descriptions; deciding information to be obtained by survey (for example, wage data, policies, and practices affecting wages, etc.); selecting firms to be included in studys; and finally, analyzing and summarizing the results obtained.

"How to Make a Wage Survey" will be a valuable aid to those engaged in wage and salary studies as it can be used both as a textbook and a reference book.

Copies may be ordered from Professional Colleges Bookstore, University of Minnesota, Minneapolis 14. Price: $1.00 cash or check.

Personnel service

SERVICES OFFERED

Sales Engineer or **Manager**—over twenty years experience in sales promotion of industrial, commercial, housecheating and domestic gas appliances. This has included selling, installing and servicing. Desires to hear from appliance manufacturer, dealer or utility. **1590.**

Engineer, Supervisor:—Graduate engineer with diversified experience in the gas industry. Design of production and handling plants, gas surveys, studies, etc. Operation, maintenance and construction of gas production plants. Distribution operation, maintenance and construction, appraisals. **1591.**

Controller, Assistant Controller, **Treasurer,** Assistant Treasurer—Public Utility specialist in accounting systems and procedures, cost control, budgeting, finance, statistics, rate making and complex regulatory problems. Eleven years experience with large utilities assisting executives in policy-making and other administrative duties. M.B.A., Harvard graduate School of Business Administration. Young, married veteran. **1592.**

Economic Statistician: Columbia graduate, 1943, experienced in economic research. Thorough knowledge of modern statistical technique and experience in organizing and carrying out research projects. Ability to interpret results and express them in concise reports. Married veteran. Available for immediate employment. Prefer vicinity of N. Y. C. (27). **1593.**

Chemical Engineer—Recent graduate of B.P.I. Graduate study in Distillation, Chemical Engineering, Economics and Instrumentation. Undergraduate work in design, chemical engineering processes and fuels. Extensive training and experience in electrical and electronic controls. Desire production or development work N. Y. area. Veteran (23). **1594.**

Sales Engineer—Manager: Ten years Industrial, Commercial, Heating experience; four years sales manager of 40,000 meter manufactured gas utility. Excellent public relations background. One whose interest is to foster good public relations, to keep existing services active, and to add profitable load. Married, excellent health. References available. (39). **1595.**

Well known **Engineer-Executive** available for consulting and advisory assignments as far as permanent situation. Thoroughly experienced in all phases of the manufactured gas business—management, production, distribution, service, rates, employee relations, publications, etc. Also experienced in natural gas, except production. **1596.**

Manager-Engineer. Extensive training and experience in the operation of gas properties. Well versed in the production of carburetted water gas and propane air including conversions. Experience includes high and low pressure distribution, sales and commercial activities. College graduate with technical degree. Licensed engineer in Pennsylvania. **1597.**

Chemical Engineer, B.Ch.E. 1948 (cum laude), Tau Beta Pi; conscientious, ambitious, draft status 1C; Resigned out-of-town position to continue graduate studies in N.Y.C.; Desires full-time position within commuting distance Metropolitan Area. (25). **1598.**

Mechanical Engineer—University of Connecticut, 1923. Technical Consultant and Results Engineer. Twenty-five years experience economic and engineering studies; planning research, site desirability, historical cost analysis of construction, valuation, continuing property records, depreciation, retirements, procurements and production, markets. Personnel, studies in power and light, gas, railroads, chemical and manufacturing plants. **1599.**

POSITIONS OPEN

Eastern Utility—Man experienced in accident prevention work including program development, training, etc. Please state qualifications, age, previous salary background in letter. **0537.**

Production Superintendent for large coal gas plant. Young man, experience with continuous vertical retorts desirable but not essential. Splendid opportunity for energetic person. **0538.**

Medium size straight gas utility—planning changeover to natural gas—has permanent position for young, experienced individual capable of directing **distribution** and **customer service** activities. **0539.**

Service Man for employment with utility company in sub-district propane air system. Experience in servicing appliances and laying mains and services is preferred. Reply giving in detail experience, education and salary expected. **0540.**

Accountant—Experienced in customer and general accounting methods and procedures to specialize in systems work. Accounting machine experience desirable. Headquarters in New York with considerable travelling. Substantial salary and future opportunity. **0541.**

Design Engineer—Graduate engineer with 5 or more years in design, development or application of gas-fired, steam, and hot water unit heaters to head up design group. A knowledge of heat transfer essential. Production experience desirable. Well established AAA1 company located in New York State. Salary open. **0542.**

Sales Engineer—Experienced in selling, installing and servicing industrial heating and ventilating equipment. To cover S.W. Connecticut. Car necessary. Commission plus expenses. All applications considered confidential. Write full details concerning education, experience, etc. **0543.**

Assistant Gas Engineer—To assist in general supervision of operation and maintenance natural gas distribution properties in Middle West. Should have technical education also experience operation and maintenance water gas plants. **0544.**

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